



EMI TEST REPORT

Test Report No. : 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.

Type of equipment : DVD/VCR

Model number : PV-D744S-A

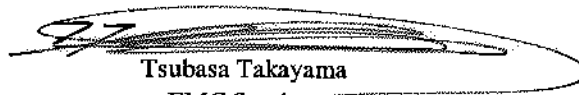
Test standard : FCC Part 15 Subpart B
ICES-003 Issue No.4 Class B

Test result : Complied

1. This test report shall not be reproduced except in full or partial, without the written approval of UL Apex Co., Ltd.
2. The results in this report apply only to the sample tested.
3. This equipment is in compliance with above regulation. We hereby certify that the data contain a true representation of the EMC profile.
4. The test results in this test report are traceable to the national or international standards.
5. This test report does not constitute an endorsement by NIST/NVLAP or U.S. Government.

Date of test : July 26 to 28, 2004

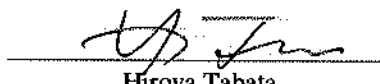
Tested by:


Tsubasa Takayama
EMC Service


Seigo Kakehi
EMC Service


Yuichi Kaneyama
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Approved by:


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Section 1 : Client information

Company name : Orion Electric Co., Ltd.
Address : 41-1 Iehisa-cho, Takefu-shi, Fukui-ken, 915-8555 JAPAN
Telephone number : +81 778 23 0019
Facsimile number : +81 778 23 7799
Contact person : Hiroshi Tsujimoto

Section 2 : Equipment under test (E.U.T.)**2.1 Identification of E.U.T.**

Type of equipment : DVD/VCR
Brand Name : Panasonic
Model number : PV-D744S-A
FCC ID : A7RM2D8D
Rating : AC 120 V / 60 Hz
Manufacturer : 1. World Electric (Thailand) Ltd.
236 Moo 2 Nongchark, Banbung, Chonburi 20170, Thailand
2. Korat Denki Ltd.
149 Moo 10 Tambol Chokchai, Amphur Chokchai, Nakhonratchasima
30190, Thailand
228 Moo 3 Tambol Nongbuasala, Amphur Muang, Nakhonratchasima
30000, Thailand
3. Orion America, Inc.
Hwy 41 North, Orion Place, Princeton, Indiana 47670, U.S.A
Receipt Date of Sample : July 23, 2004
Condition of EUT : Production Prototype
(Not for Sale: This sample is equivalent to mass-produced items.)

2.2 Product description

Model: PV-D744S-A (referred to as the EUT in this report) is a DVD/VCR.

The EUT specifications is as follows.

Tuner type : Quartz PLL frequency synthesized
I / F : 45.75 MHz (Picture), 41.25 MHz (Sound)
Receiving channel : VHF 2 – 13 ch / UHF 14 – 69 ch / CATV 1 – 125 ch
Antenna input : 75 ohm
Video signal : NTSC color
Power source : AC 120 V / 60 Hz, 18W
I / O terminal (Video) : RCA in 1Vp-p 75 ohm, RCA out 1 Vp-p 75 ohm
I / O terminal (Audio) : RCA in –8 dB 47 k ohm, RCA out –8 dB 1 k ohm

2.3 Similar apparatus

There is no similar apparatus.

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Section 3 : Test specification, procedures and results

3.1 Test specification

Test specification: FCC Part 15 Subpart B
 Title : FCC 47 CFR Part 15 Radio Frequency Device
 Subpart B Unintentional Radiators

Test Specification : ICES-003 Issue No. 4
 Title : Spectrum Management
 Interference-Causing Equipment Standard
 Digital Apparatus
 *ICES-003 (Issue No. 4) is based on FCC Part 15.

3.2 Procedures & results

Item	Test procedure	Limits	Worst margin	Result
Conducted emission	ANSI C63.4:2003 IEEE 213:1987	CISPR 22	19.5 dB (0.1815 MHz, L1 AV input 1 + Rec. 5Vp-p / 0.1714 MHz, L1, AV input 2 + Rec. 1Vp-p)	Complied
Radiated emission	ANSI C63.4:2003 IEEE 187:1990	30–88 MHz: 100 uV/m 88–216 MHz: 150 uV/m 216–960 MHz: 200 uV/m above 960 MHz: 500 uV/m	6.2 dB (202.50 MHz, Horizontal, TV reception + Rec. 25dBmV)	Complied
Antenna terminal voltage	ANSI C63.4:2003	2 nW (at 75 ohm)	29.9 dB (1237.84200 MHz, TV tuning)	Complied
RF output level	ANSI C63.4:2003	Video signal: 3000 uV Aural signal: 671 uV	6.0 dB (61.25 MHz, DVD play)	Complied
Spurious emission		94.8 uV	19.1 dB (841.7100 MHz, 4ch, AV input 2 + Rec. 5Vp-p)	Complied
Transfer switch	ANSI C63.4:2003	9.5 dB	6.1 dB (367.5000 MHz, 3ch, AV input 2 + Rec. 1Vp-p)	Complied
Picture sensitivity	ANSI C63.4:2003	8 dB	5.8 dB	Complied
Noise figure	FCC/OET MP:2:1986	14 dB	6.2 dB (55.25 MHz, 2ch)	Complied

For ICES-003, only the tests, which relate to the digital device of conducted emission and radiated emission, were performed.

3.3 Additions or deviations to standard

No addition, deviation or exclusion has been made from standards.

3.4 Confirmation

UL Apex Co., Ltd. hereby confirms that E.U.T., in the configuration tests, complies with the specifications
 FCC Part15 Subpart B and ICES-003 Issue No. 4.

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3.5 Uncertainty

Conducted emission (150 kHz – 30 MHz)

The measurement uncertainty (with a 95% confidence level) for this test was ± 1.74 dB.

The data listed in this test report has enough margin, more than site margin.

Radiated emission

The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is ± 4.4 dB.

The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is ± 4.8 dB.

The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is ± 5.8 dB.

The data listed in this test report has enough margin, more than site margin.

Antenna terminal voltage

The measurement uncertainty (with a 95% confidence level) for this test was ± 3.48 dB.

The data listed in this test report has enough margin, more than site margin.

RF output level test / spurious emission test

The measurement uncertainty (with a 95% confidence level) for this test was ± 3.48 dB.

The data listed in this test report has enough margin, more than site margin.

Antenna transfer switch

The measurement uncertainty (with a 95% confidence level) for this test was ± 3.48 dB.

The data listed in this test report has enough margin, more than site margin.

Picture sensitivity test

The measurement uncertainty (with a 95% confidence level) for this test was ± 1.0 dB.

The data listed in this test report has enough margin, more than site margin.

Noise Figure Test

The measurement uncertainty (with a 95% confidence level) for this test was ± 1.2 dB.

The data listed in this test report has enough margin, more than site margin.

3.7 Test location

UL Apex Co., Ltd. Yokowa EMC Lab. No.2, No.7 shielded room, No.1 and No.2 open site

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No.1 open site

This site has been fully described in a report submitted to FCC office, and listed on September 25, 2003.

(Registration number: 90412)

No.2 open site

This site has been fully described in a report submitted to FCC office, and listed on August 29, 2003.

(Registration number: 90411)

*NVLAP Lab. Code : 200109-0

3.8 Test setup, Data of EMI & Test instruments

Please refer to Appendix 1 to 3.

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Section 4 : Operation of E.U.T. during tests

4.1 Operating modes

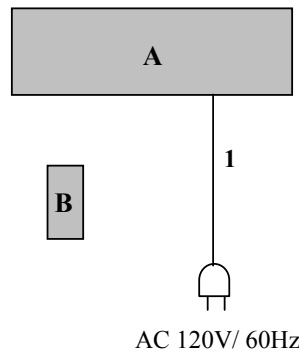
The EUT exercise program used during testing was designed exercise the various system components in a manner similar to typical use.

The sequence in used :
 * TV reception + Rec. mode (0 dBmV input / 25 dBmV input)
 * AV input 1+ Rec. / AV input 2 + Rec. mode (1 Vp-p input / 5 Vp-p input)
 * VCR play mode
 * DVD play mode

Operation : The EUT was tested at above operation mode.

Justification : The system was configured in typical fashion (as a customer would normally use it) for testing.

4.2 Configuration and peripherals



* Cabling was taken into consideration and test data was taken under worse case conditions.

Description of EUT and support equipment

Sign	Item	Model number	Serial number	Manufacturer	FCC ID	Remark
A	DVD/VCR	PV-D744S-A	—	Orion Electric Co., Ltd.	A7RM2D8D	EUT
B	Remote Controller	—	—	Orion Electric Co., Ltd.	-	EUT

List of cable used

No.	Item	Length (m)	Shield	Backshell material
1	AC Power Cable	1.6	Unshielded	Polyvinyl chloride

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Section 5 : Conducted emission

5.1 Operation environment

The test was carried out in a shielded room the size of 4.5 x 3.6 x 2.7m.

Date : July 27, 2004

Temperature : See data

Humidity : See data

5.2 Test configuration

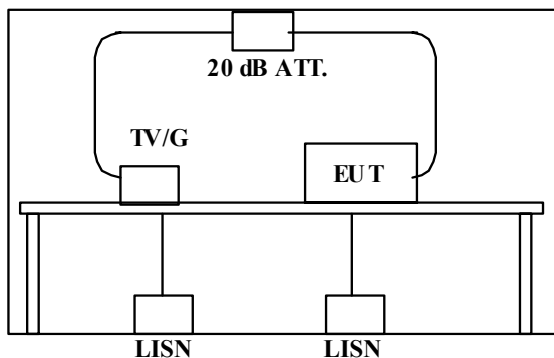
EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The rear of tabletop was located 40 cm to the vertical conducting plane. The rear of EUT was aligned and flushed with rear of tabletop. All other surfaces of tabletop was at least 80 cm from any other grounded conducting surface. I/O cables and AC cable were bundled in center. I/O cables were hanged at a 40cm height to the ground plane. Each EUT current-carrying power lead, except the ground (safety) lead, were individually connected through a LISN to the input power source. All unused 50 ohm connectors of the LISN were resistively terminated in 50 ohm when not connected to the measuring equipment.

A drawing of the set up is shown in figure 1 and photographs in Appendix 1.

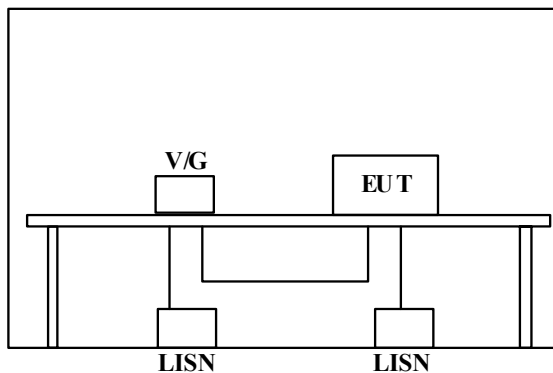
Figure 1. Conducted emission

TV reception + Rec. mode (0 dBmV input / 25 dBmV input)

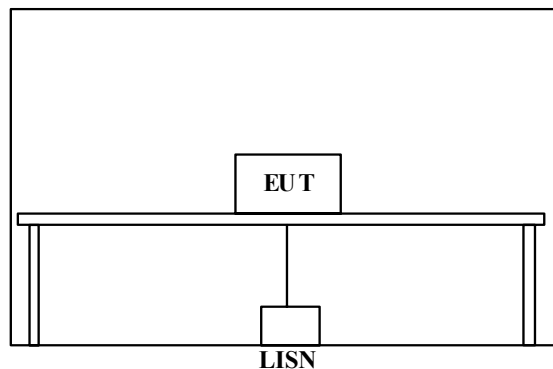
Shielded room



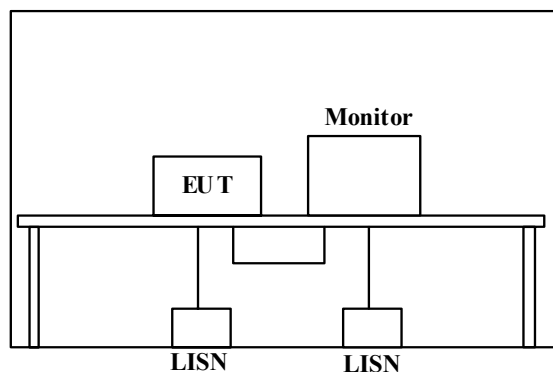
RF in: TV signal generator connected
 Front video in: 75 ohm terminated
 Front audio in: 47 k ohm terminated
 Rear video out: 75 ohm terminated with video cable
 Rear audio out: 1 k ohm terminated with audio cable
 S-Video out: 75 ohm terminated with S-Video cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: 75 ohm terminated
 Rear Audio in: 47 k ohm terminated

AV input 1+ Rec. / AV input 2 + Rec. mode (1 Vp-p input / 5 Vp-p input)**Shielded room**

RF in: 75 ohm terminated
 Front video in: Video signal generator connected or 75 ohm terminated
 Front audio in: 47 k ohm terminated
 Rear video out: 75 ohm terminated with video cable
 Rear audio out: 1 k ohm terminated with audio cable
 S-Video out: 75 ohm terminated with S-Video cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: Video signal generator connected or 75 ohm terminated
 Rear audio in: 47 k ohm terminated

VCR play + Rec. mode**Shielded room**

RF in: 75 ohm terminated with RF input cable
 Front video in: 75 ohm terminated with video cable
 Front audio in: 47 k ohm terminated with audio cable
 Rear video out: 75 ohm terminated with video cable
 Rear audio out: 1 k ohm terminated with audio cable
 S-Video out: 75 ohm terminated with S-Video cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: 75 ohm terminated with video cable
 Rear audio in: 47 k ohm terminated with audio cable

DVD play mode**Shielded room**

RF in: 75 ohm terminated with RF input cable
 Front video in: 75 ohm terminated with video cable
 Front audio in: 47 k ohm terminated with audio cable
 Rear video out: monitor connected
 Rear audio out: monitor connected
 S-Video out: 75 ohm terminated with S-Video cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: 75 ohm terminated with video cable
 Rear audio in: 47 k ohm terminated with audio cable

5.3 Test conditions

Frequency range : 0.15 MHz – 30 MHz

EUT position : Table top

EUT operation mode : TV reception + Rec., AV input 1+ Rec. / AV input 2 + Rec., VCR play, DVD play

5.4 Test procedure

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT within a shielded room. The EUT was connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection has been performed. The measurements have been performed with a quasi-peak detector and if required, with an average detector.

EUT and desired signal generator should connect through 20 dB attenuator.

The conducted emission measurements were made with the following detector function of the test receiver.

Detector Type : QP

IF Bandwidth : 10 kHz

5.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Yuichi Kaneyama

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Section 6 : Radiated emission

6.1 Operation environment

The test was carried out in an open site.

Date : July 26 and 27, 2004

Temperature : See data

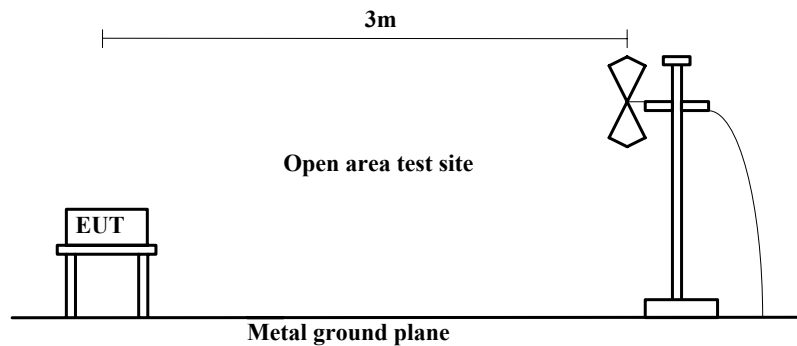
Humidity : See data

6.2 Test configuration

EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The rear of EUT was aligned and flushed with rear of tabletop. AC cable was bundled in center. I/O cables were hanged 40 cm height to the ground plane. Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength.

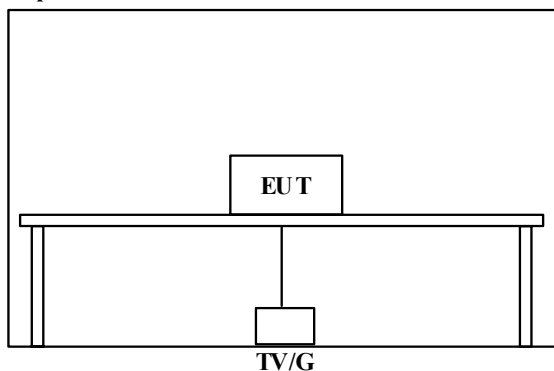
A drawing of the set up is shown in figure 2 and photographs in Appendix 1.

Figure 2. Radiated emission



TV reception + Rec. mode (0 dBmV / 25 dBmV)

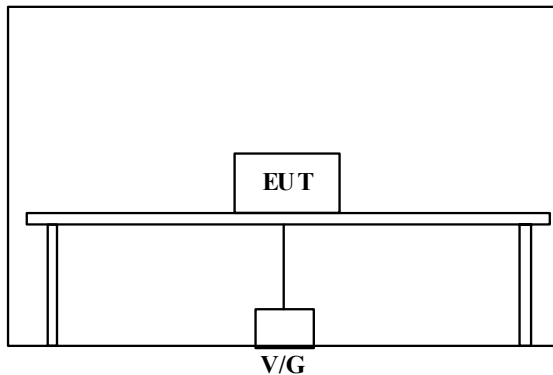
Open test site



RF in: TV signal generator connected
 Front video in: 75 ohm terminated
 Front audio in: 47 k ohm terminated
 Rear video out: 75 ohm terminated with video cable
 Rear audio out: 1 k ohm terminated with audio cable
 S-Video out: 75 ohm terminated with S-Video cable
 Component (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: 75 ohm terminated
 Rear Audio in: 47 k ohm terminated

AV input 1 + Rec. / AV input 2 + Rec. mode (1 Vp-p input / 5 Vp-p input)

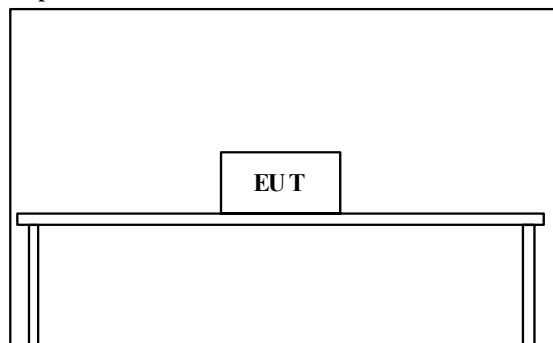
Open test site



RF in: 75 ohm terminated
 Front video in: Video signal generator connected or 75 ohm terminated
 Front audio in: 47 k ohm terminated
 Rear video out: 75 ohm terminated with video cable
 Rear audio out: 1 k ohm terminated with audio cable
 S-Video out: 75 ohm terminated with S-Video cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: Video signal generator connected or 75 ohm terminated
 Rear audio in: 47 k ohm terminated

VCR play + Rec. mode

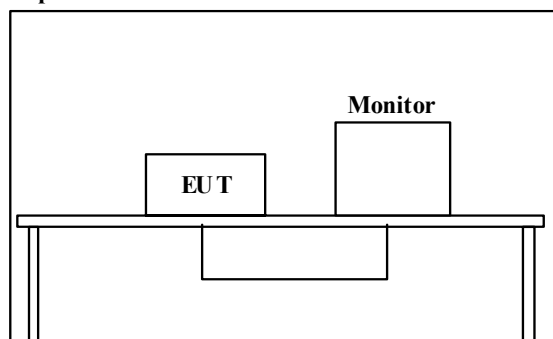
Open test site



RF in: 75 ohm terminated with RF input cable
 Front video in: 75 ohm terminated with video cable
 Front audio in: 47 k ohm terminated with audio cable
 Rear video out: 75 ohm terminated with video cable
 Rear audio out: 1 k ohm terminated with audio cable
 S-Video out: 75 ohm terminated with S-Video cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: 75 ohm terminated with video cable
 Rear audio in: 47 k ohm terminated with audio cable

DVD play mode

Open test site



RF in: 75 ohm terminated with RF input cable
 Front video in: 75 ohm terminated with video cable
 Front audio in: 47 k ohm terminated with audio cable
 Rear video out: monitor connected
 Rear audio out: monitor connected
 S-Video out: 75 ohm terminated with S-Video cable
 Component out (Y/P_B/P_R): 75 ohm terminated with component cable
 RF output: 75 ohm terminated with RF output cable
 Coaxial out: 75 ohm terminated with coaxial cable
 Rear video in: 75 ohm terminated with video cable
 Rear audio in: 47 k ohm terminated with audio cable

6.3 Test conditions

Frequency range : 30 MHz – 2000 MHz
Test distance : 3 m
EUT position : Table top
EUT operation mode : TV reception + Rec., AV input 1+ Rec. / AV input 2 + Rec., VCR play, DVD play

6.4 Test procedure

The Radiated Electric Field Strength intensity has been measured on an open test site with a ground plane and at a distance of 3 m.

Pre check measurements were performed within a search coil at high level of 80MHz – 90MHz, 270MHz – 290MHz and 500MHz – 700MHz in a shielded room to distinguish disturbances of EUT from the ambient noise. Measurements were performed with quasi-peak detector, peak detector and average detector. The measuring antenna height was varied between 1 and 4 m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity. The measurements were performed for both vertical and horizontal antenna polarization.

The radiated emission measurements were made with the following detector function of the test receiver and spectrum analyzer.

	<u>30-1000MHz (Test receiver)</u>	<u>1000-2000MHz (Spectrum analyzer)</u>
Detector Type	: QP	: PK : AV
IF Bandwidth	: 120kHz	: RBW 1MHz / VBW 1MHz : RBW 1MHz/ VBW 10Hz

6.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Seigo Kakehi (July 26, 2004)
Tsubasa Takayama (July 27, 2004)

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Section 7 : Antenna terminal voltage

7.1 Operation environment

The test was carried out in a shielded room the size of 9.3 x 3.4 x 2.7 m.

Date : July 26, 2004

Temperature : See data

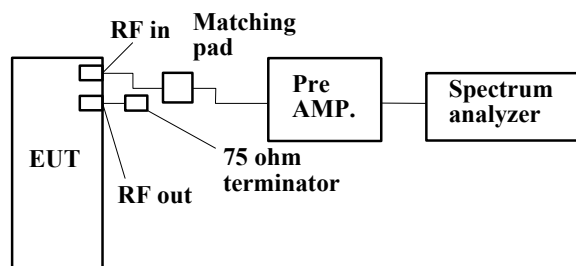
Humidity : See data

7.2 Test configuration

The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.

A drawing of the set up is shown in figure 3 and photographs in Appendix 1.

Figure 3. Antenna terminal voltage



7.3 Test conditions

Frequency range : 30 MHz – 2000 MHz

EUT position : Table top

EUT operation mode : Tuning (TV receiver / CATV receiver)

7.4 Test procedure

Connect EUT and spectrum analyzer through pre-amplifier. Set EUT to CH investigation mode then measure the voltage of local leakage from antenna terminal. Spectrum analyzer should be hold in maximum mode during the measurement.

Detector Type : Peak (30-2000 MHz)

7.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Tsubasa Takayama

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Section 8 : RF output level / spurious emission

8.1 Operation environment

The test was carried out in a shielded room the size of 9.3 x 3.4 x 2.7 m.

Date : July 28, 2004

Temperature : See data

Humidity : See data

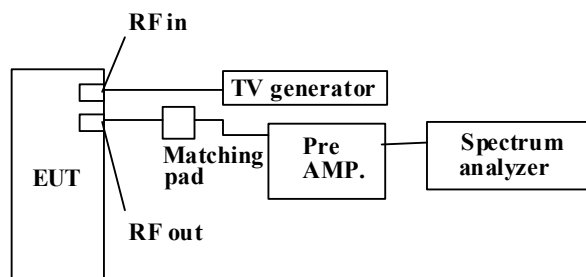
8.2 Test configuration

The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.

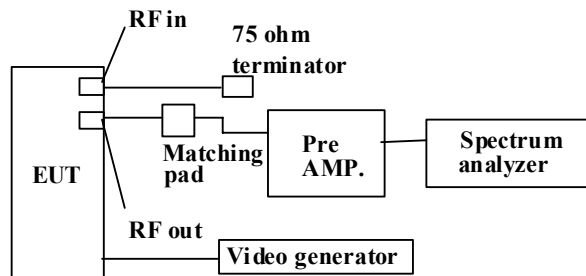
A drawing of the set up is shown in figure 4 and photographs in Appendix 1.

Figure 4. RF output level

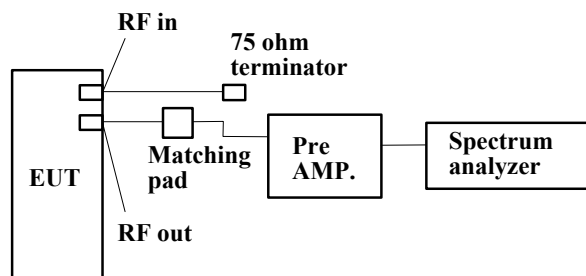
TV Reception + Rec. mode



AV input 1 + Rec. / AV input 2 + Rec. mode (1 Vp-p input / 5 Vp-p input)



VCR play mode and DVD play mode



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8.3 Test conditions

EUT position : Table top

EUT operation mode : TV reception + Rec., AV input 1+ Rec. / AV input 2 + Rec., VCR play, DVD play

8.4 Test procedure

EUT was connected spectrum analyzer through matching pad by accessory cable. RF channel selected 3ch or 4ch. Picture carrier, sound carrier and spurious levels are measured. Both sound carrier levels (upper and lower side bands) of modulator output are measured.

Detector Type : Peak

8.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Seigo Kakehi

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Section 9 : Antenna transfer switch

9.1 Operation environment

The test was carried out in a shielded room the size of 9.3 x 3.4 x 2.7 m..

Date : July 28, 2004

Temperature : See data

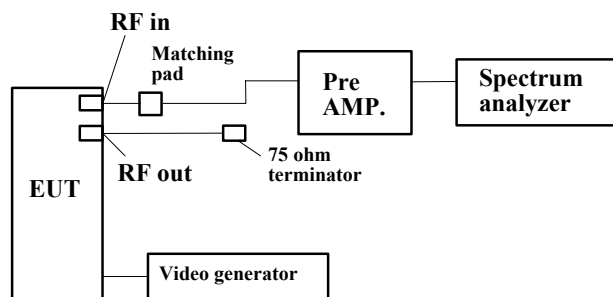
Humidity : See data

9.2 Test configuration

The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.

A drawing of the set up is shown in figure 5 and photographs in Appendix 1.

Figure 5. Transfer switch



9.3 Test conditions

EUT position : Table top

EUT operation mode : AV input 1+ Rec. / AV input 2 + Rec., VCR play, DVD play

9.4 Test procedure

EUT was connected spectrum analyzer through matching pad by accessory cable. RF channel selected 3ch or 4ch. The EUT exercised AV input + Rec. mode and Playback mode during the test, and interference signals were measured from RF input terminal.

Detector Type : Peak

9.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Seigo Kakehi

Section 10 : Picture sensitivity

10.1 Operation environment

The test was carried out in a shielded room the size of 4.5 x 3.6 x 2.7 m.

Date : July 26, 2004

Temperature : See data

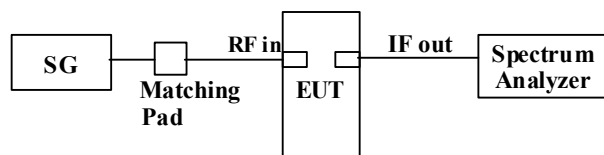
Humidity : See data

10.2 Test configuration

The EUT was placed on a non-metallic platform 0.8 m above a reference ground plane.

A drawing of the set up is shown in figure 6 and photographs in Appendix 1.

Figure 6. Picture sensitivity



10.3 Test conditions

EUT position : Table top

EUT operation mode : TV reception

10.4 Test procedure

Signal generator setup is as follows, (Example: 2ch – 55.25 MHz, AM, 1 kHz, 30 %)

The EUT was tuned to appropriate channel.

Output level of signal generator was adjusted to near the frequency output level of EUT output.

EUT output level was adjusted to maximum output level by frequency adjustment of signal generator.

Signal generator output level was adjusted to reference output level of EUT and output level had read.

10.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Tsubasa Takayama

UL Apex Co., Ltd.

Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Section 11 : Noise figure

11.1 Operating environment

The test was carried out in a shielded room the size of 4.5 x 3.6 x 2.7 m.

Date : July 26, 2004

Temperature : See data

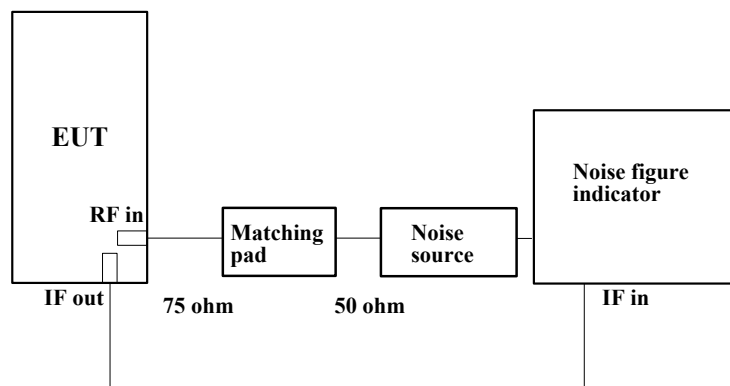
Humidity : See data

11.2 Test configuration

The EUT was placed on a non-metallic table.

A drawing of the set up is shown in figure 7 and photographs in Appendix 1.

Figure 7. Noise figure



11.3 Test condition

EUT position : Table top

EUT operation mode : TV reception

11.4 Test procedure

This test should be performed in a shielded room or an low noise environment. Connect solid state noise source to antenna input terminal of EUT. Connect IF output terminal of EUT to noise meter through ceramic condenser. Measurement has been performed for VHF,UHF, Mid-band and Super-band receiver range.

11.5 Test result

Passed

Please refer to summary of the test results in Appendix 2.

Test engineer: Tsubasa Takayama

UL Apex Co., Ltd.

Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Appendix 1 : Photographs of test set up

Page 20 : Test set up of conducted emission
Page 21 : Test set up of radiated emission
Page 22 : Test set up of antenna terminal voltage
Page 23 : Test set up of RF output level / spurious emission
Page 24 : Test set up of antenna transfer switch
Page 25 : Test set up of picture sensitivity
Page 26 : Test set up of noise figure

Appendix 2 : Data of EMI tests

Page 27 - 50 : Conducted emission
Page 51 - 77 : Radiated emission
Page 78 - 79 : Antenna terminal voltage
Page 80 - 103 : RF output level / spurious emission
Page 104 - 115 : Antenna transfer switch
Page 116 : Picture sensitivity
Page 117 : Noise figure

Appendix 3 : Test instruments

Page 118 : Test instruments

Conducted emission



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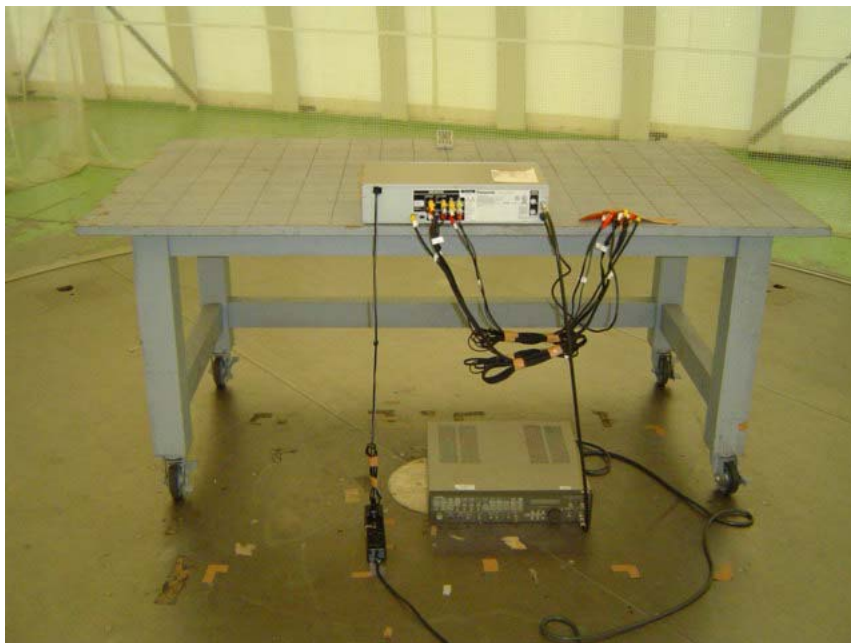
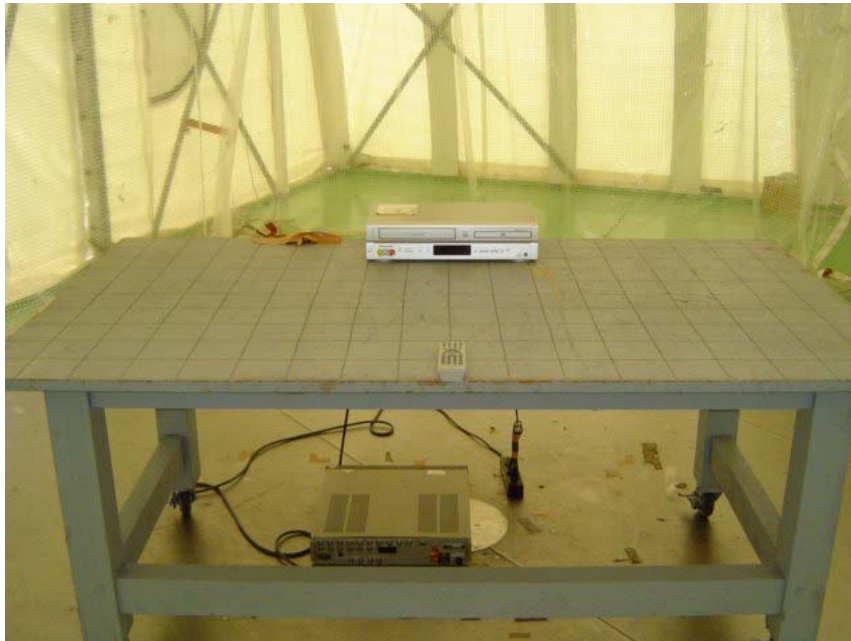
Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Radiated emission



UL Apex Co., Ltd.

Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Antenna terminal voltage



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Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

RF output level / spurious emission



UL Apex Co., Ltd.

Yokowa EMC Lab.

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Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Antenna transfer switch



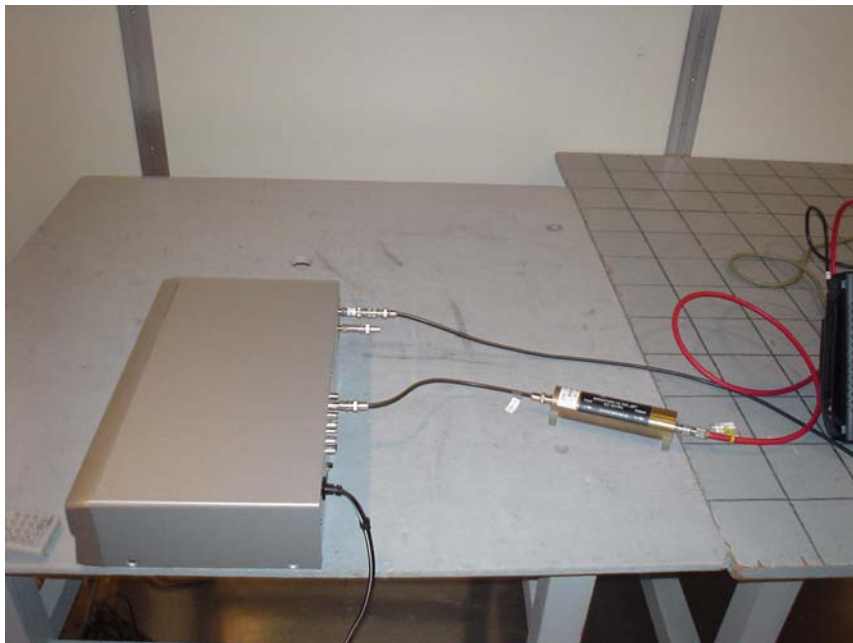
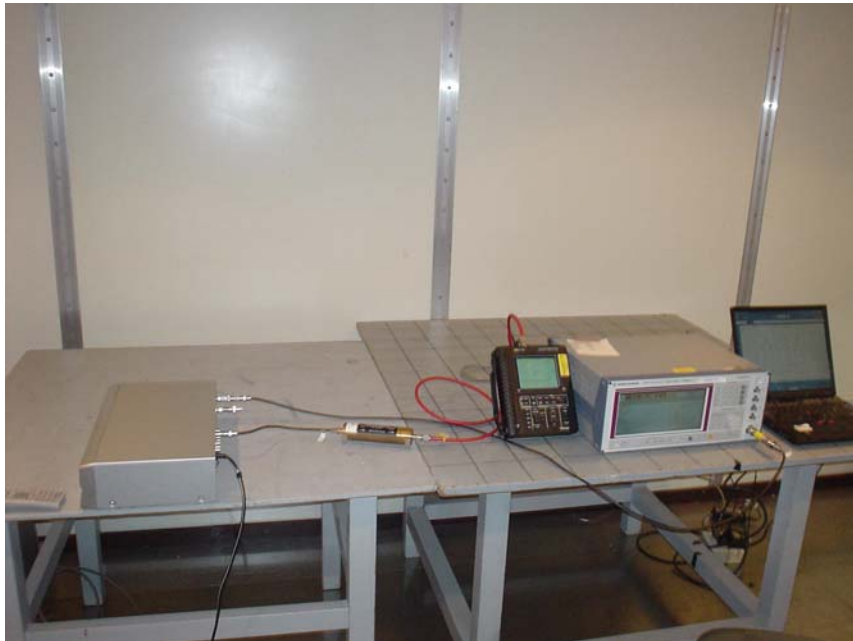
UL Apex Co., Ltd.
Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

Picture sensitivity



UL Apex Co., Ltd.

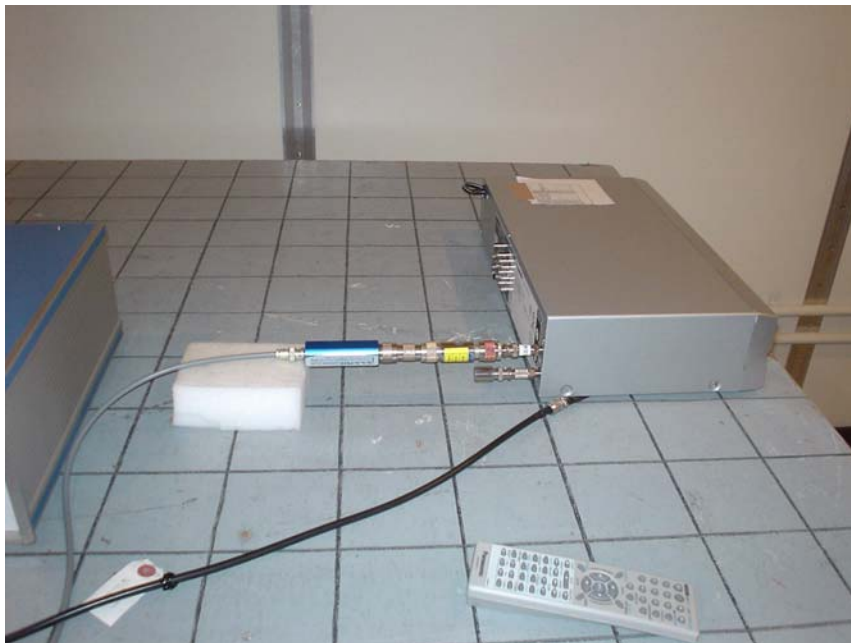
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Noise figure



UL Apex Co., Ltd.

Yokowa EMC Lab.

108 Yokowa-cho, Ise-shi, Mie-ken 516-1106 JAPAN

Telephone: +81 596 39 1485

Facsimile: +81 596 39 0232

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec.
Remarks : 25dBm
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB μV]	AV [dB]
1.	0.1707	42.5	-	45.1	-	0.1	0.0	0.0	45.2	-	64.9	54.9	19.7	-
2.	0.6964	26.2	-	30.4	-	0.2	0.1	0.0	30.7	-	56.0	46.0	25.3	-
3.	1.3815	29.8	-	31.6	-	0.2	0.2	0.0	32.0	-	56.0	46.0	24.0	-
4.	2.3770	27.5	-	27.5	-	0.2	0.2	0.0	27.9	-	56.0	46.0	28.1	-
5.	5.9775	25.7	-	27.2	-	0.4	0.3	0.0	27.9	-	60.0	50.0	32.1	-
6.	13.9455	28.2	-	29.4	-	1.1	0.4	0.0	30.9	-	60.0	50.0	29.1	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

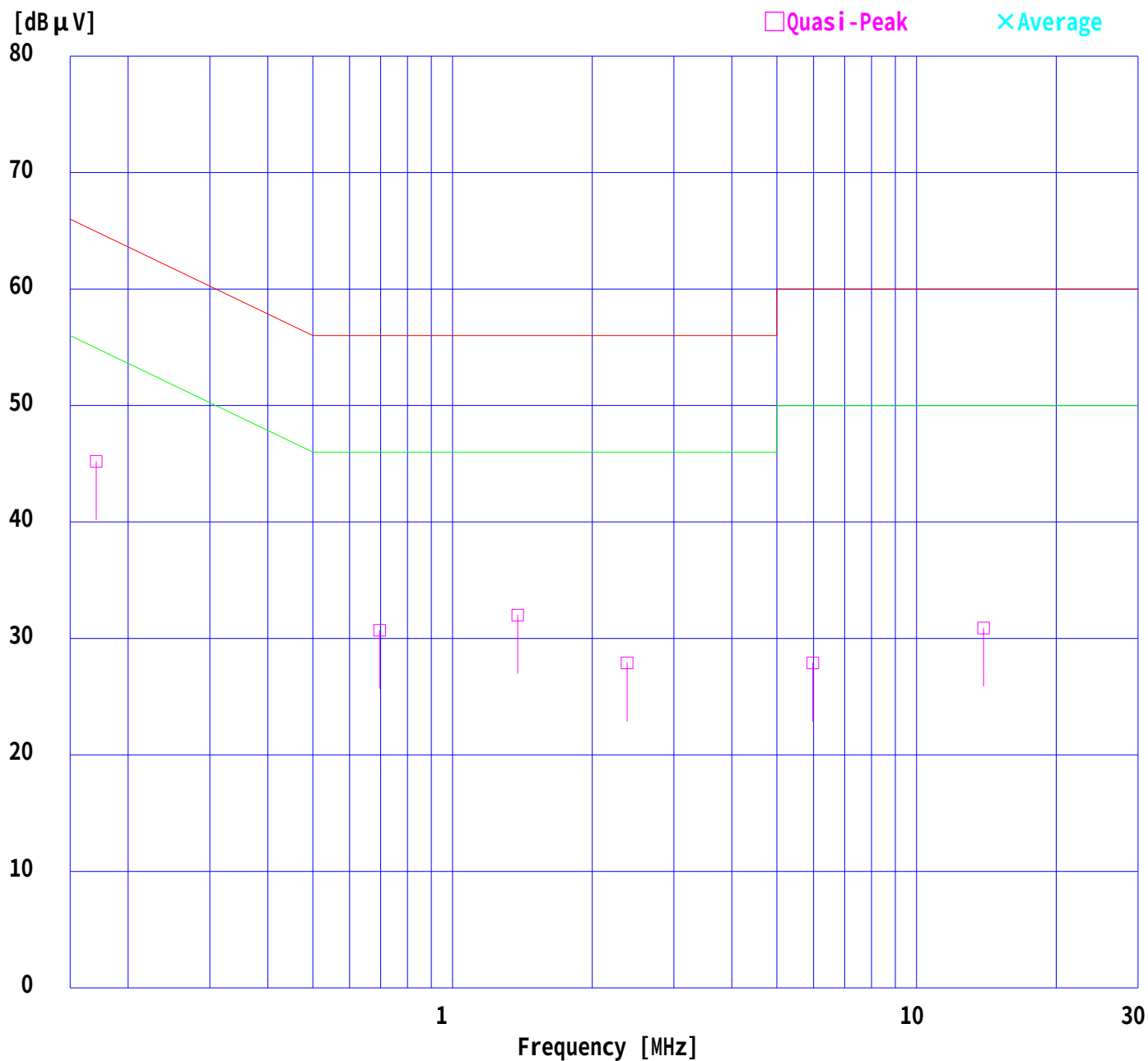
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec.
Remarks : 25dBm
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST CHART

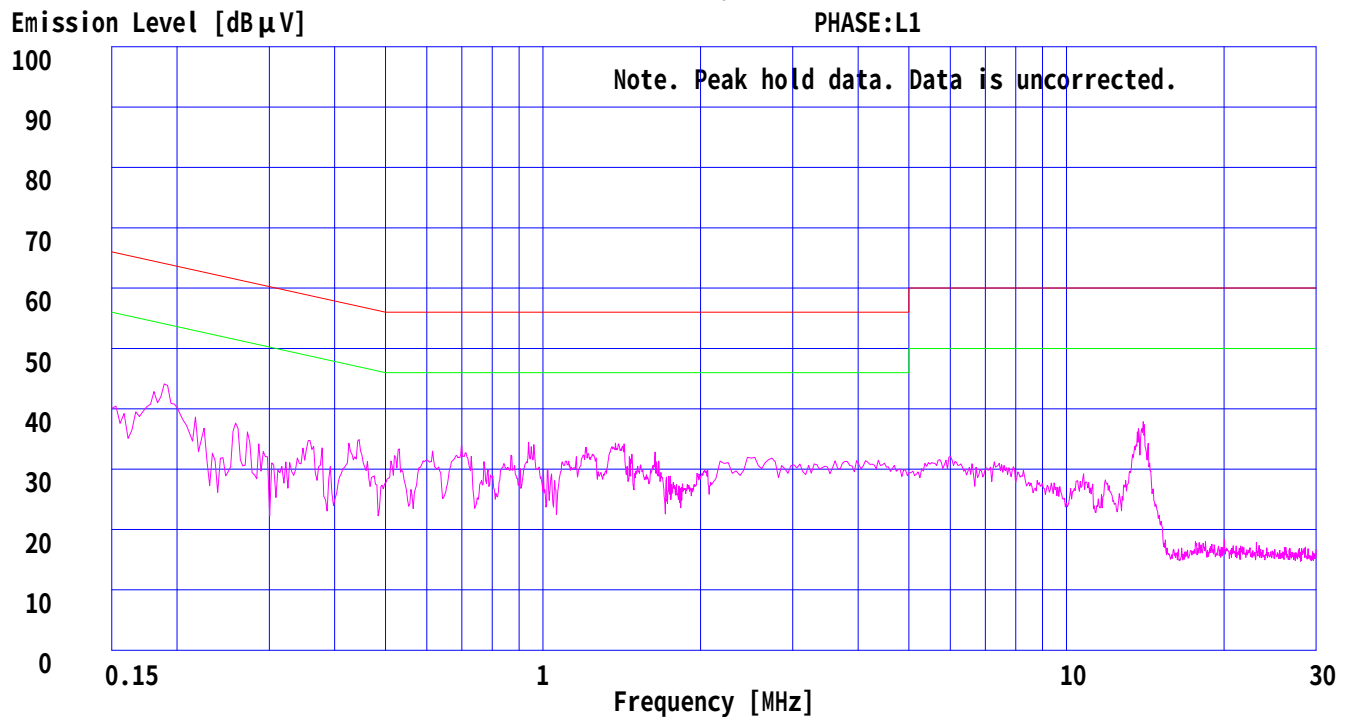
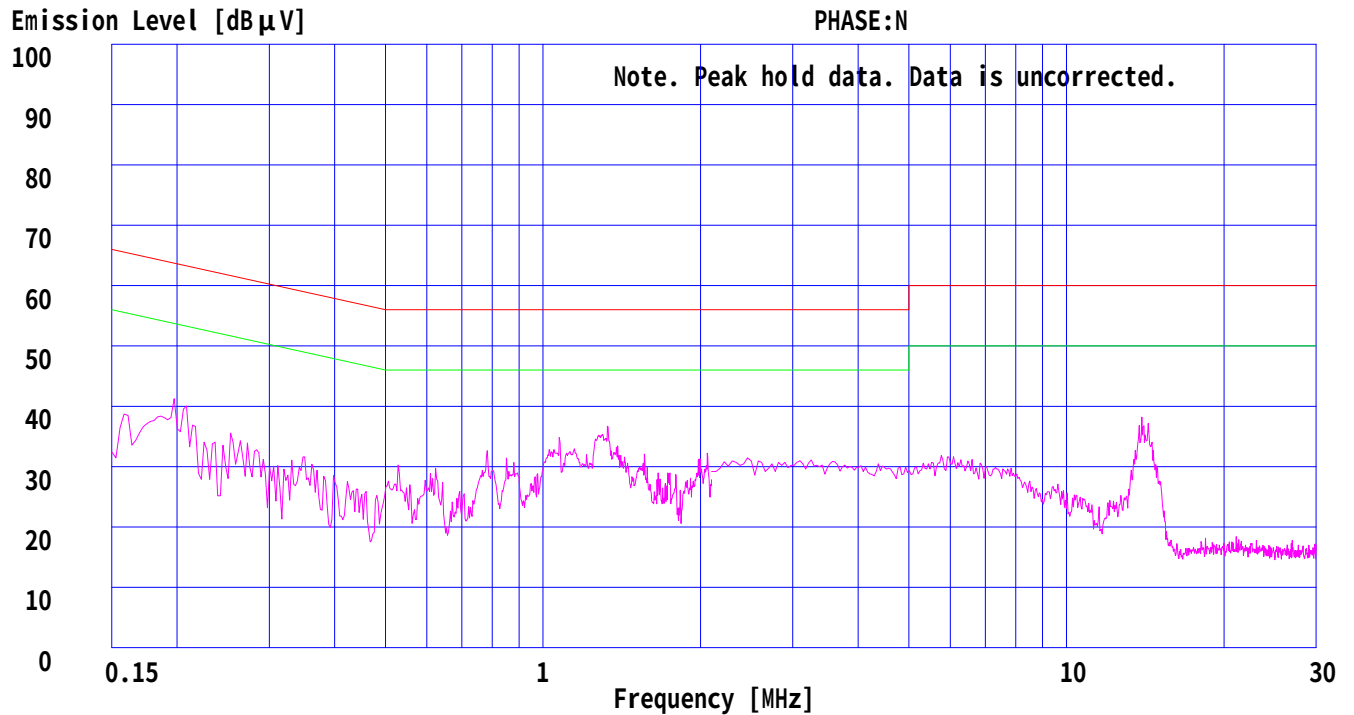
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec.
Remarks : 25dBm
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation 1 : FCC Part15 CLASS B(02-157)
Regulation 2 : None

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec.
Remarks : 0dBm
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB μV]	AV [dB]
1.	0.1837	41.1	-	40.9	-	0.1	0.0	0.0	41.2	-	64.3	54.3	23.1	-
2.	0.9346	22.0	-	29.0	-	0.2	0.2	0.0	29.4	-	56.0	46.0	26.6	-
3.	1.3786	28.7	-	31.6	-	0.2	0.2	0.0	32.0	-	56.0	46.0	24.0	-
4.	2.4750	28.6	-	30.3	-	0.2	0.2	0.0	30.7	-	56.0	46.0	25.3	-
5.	6.0932	26.2	-	26.2	-	0.4	0.3	0.0	26.9	-	60.0	50.0	33.1	-
6.	13.8875	29.3	-	29.3	-	1.1	0.4	0.0	30.8	-	60.0	50.0	29.2	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

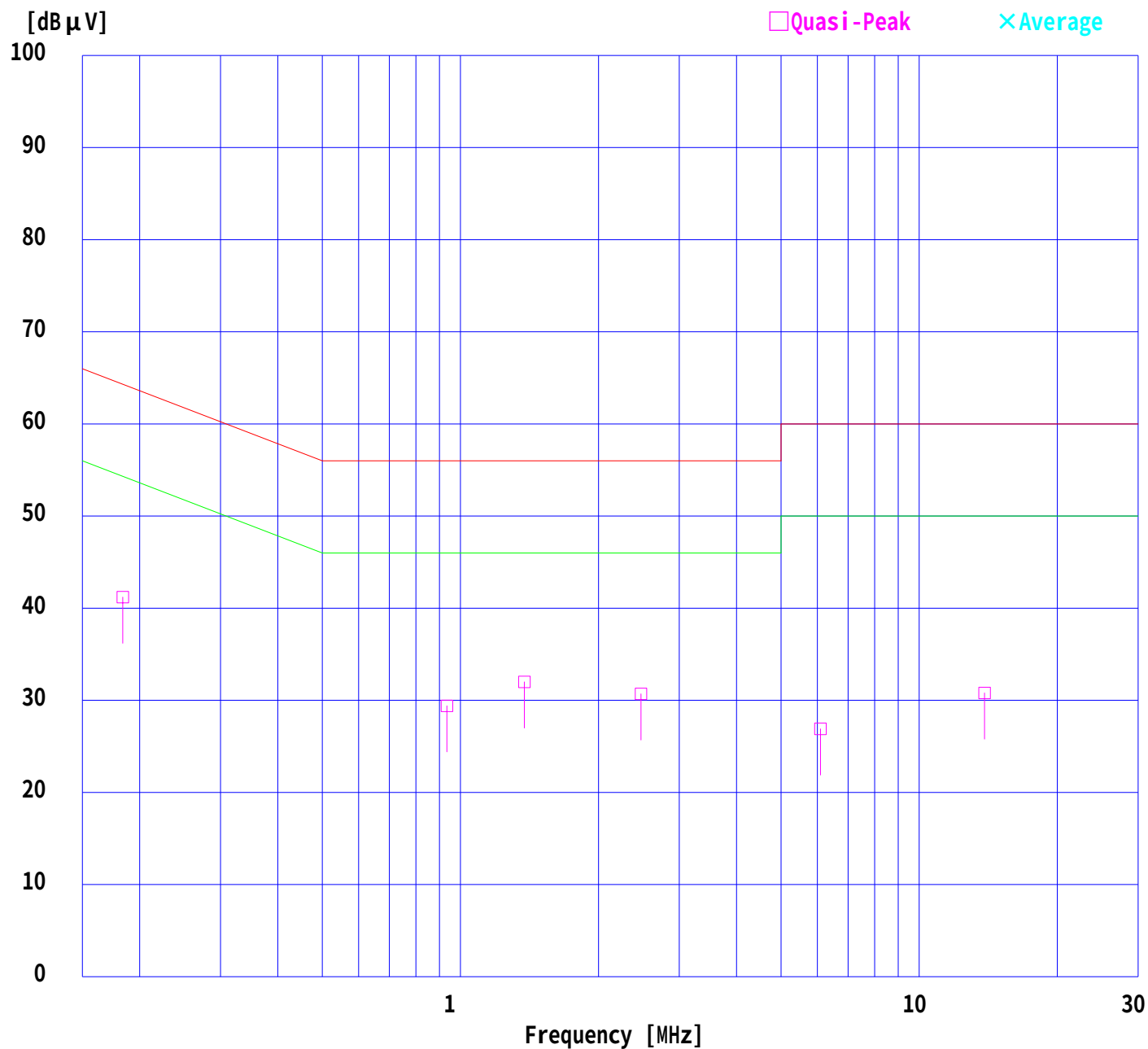
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec.
Remarks : 0dBm
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST CHART

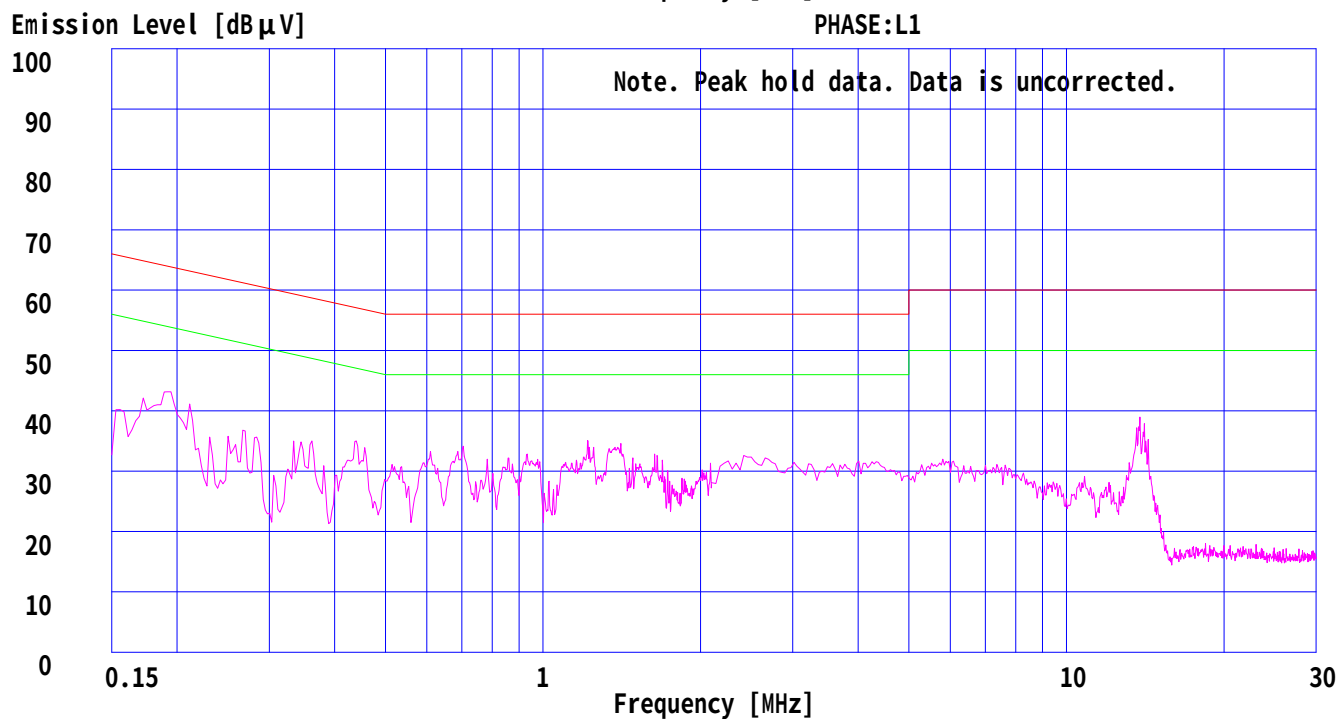
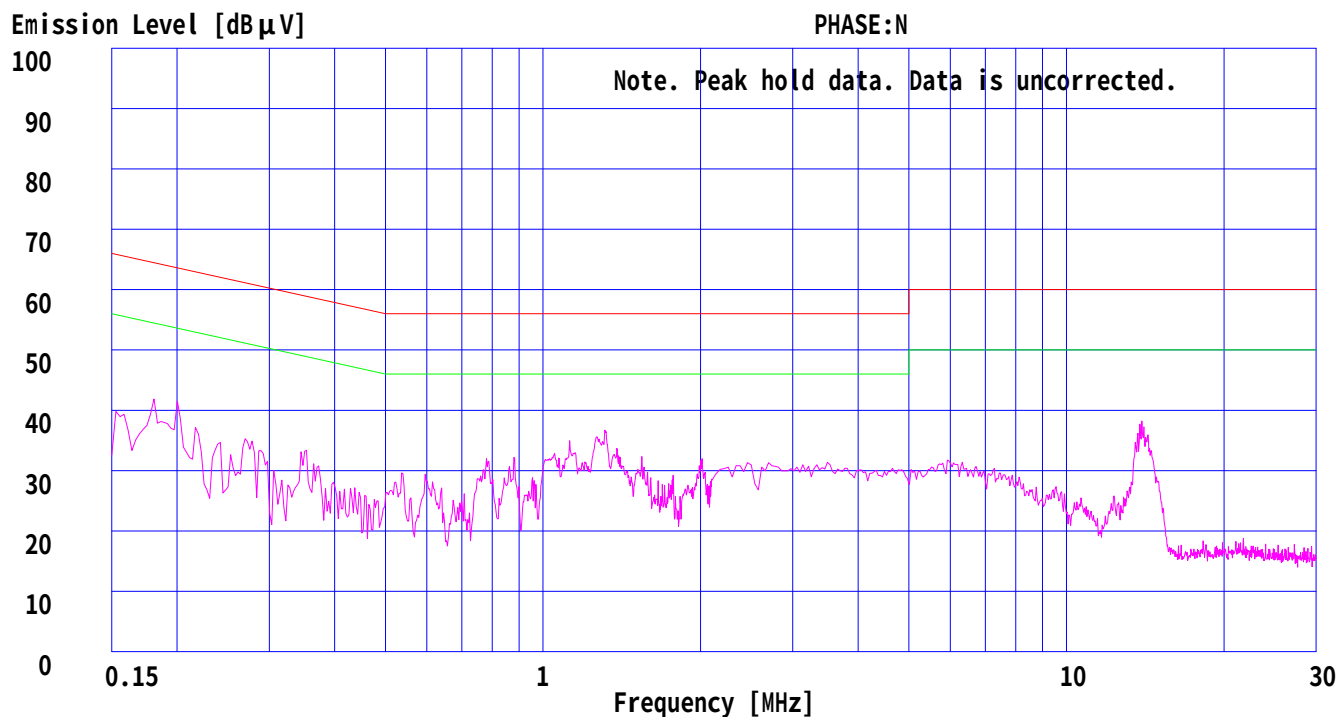
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec.
Remarks : 0dBm
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation 1 : FCC Part15 CLASS B(02-157)
Regulation 2 : None

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 1+Rec.
Remarks : 5Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB μV]	AV [dB]
1.	0.1815	41.3	-	44.8	-	0.1	0.0	0.0	44.9	-	64.4	54.4	19.5	-
2.	0.7794	26.6	-	24.7	-	0.2	0.1	0.0	26.9	-	56.0	46.0	29.1	-
3.	1.3042	32.5	-	30.7	-	0.2	0.2	0.0	32.9	-	56.0	46.0	23.1	-
4.	2.5037	27.7	-	29.8	-	0.2	0.2	0.0	30.2	-	56.0	46.0	25.8	-
5.	5.7287	25.4	-	25.8	-	0.4	0.3	0.0	26.5	-	60.0	50.0	33.5	-
6.	13.7435	22.1	-	23.7	-	1.1	0.4	0.0	25.2	-	60.0	50.0	34.8	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

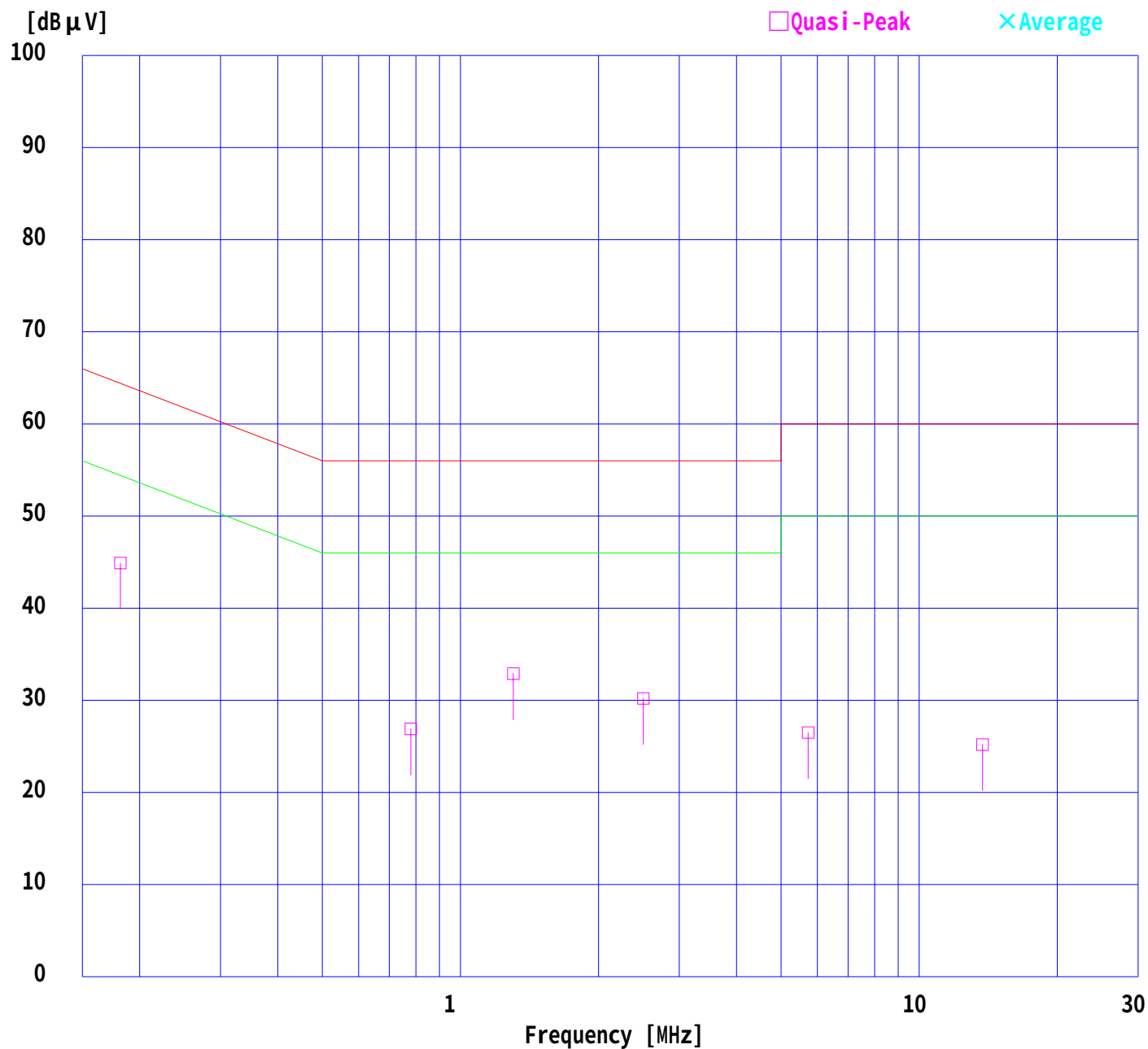
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 1+Rec.
Remarks : 5Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST CHART

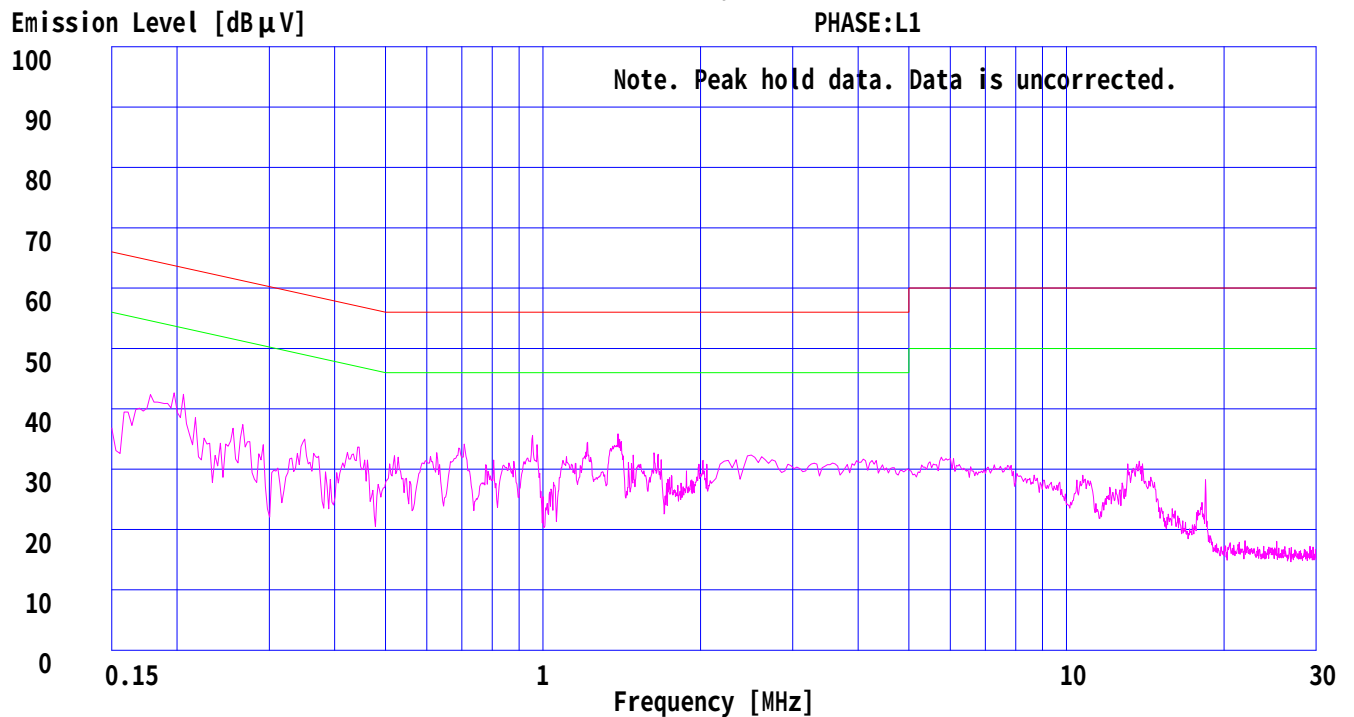
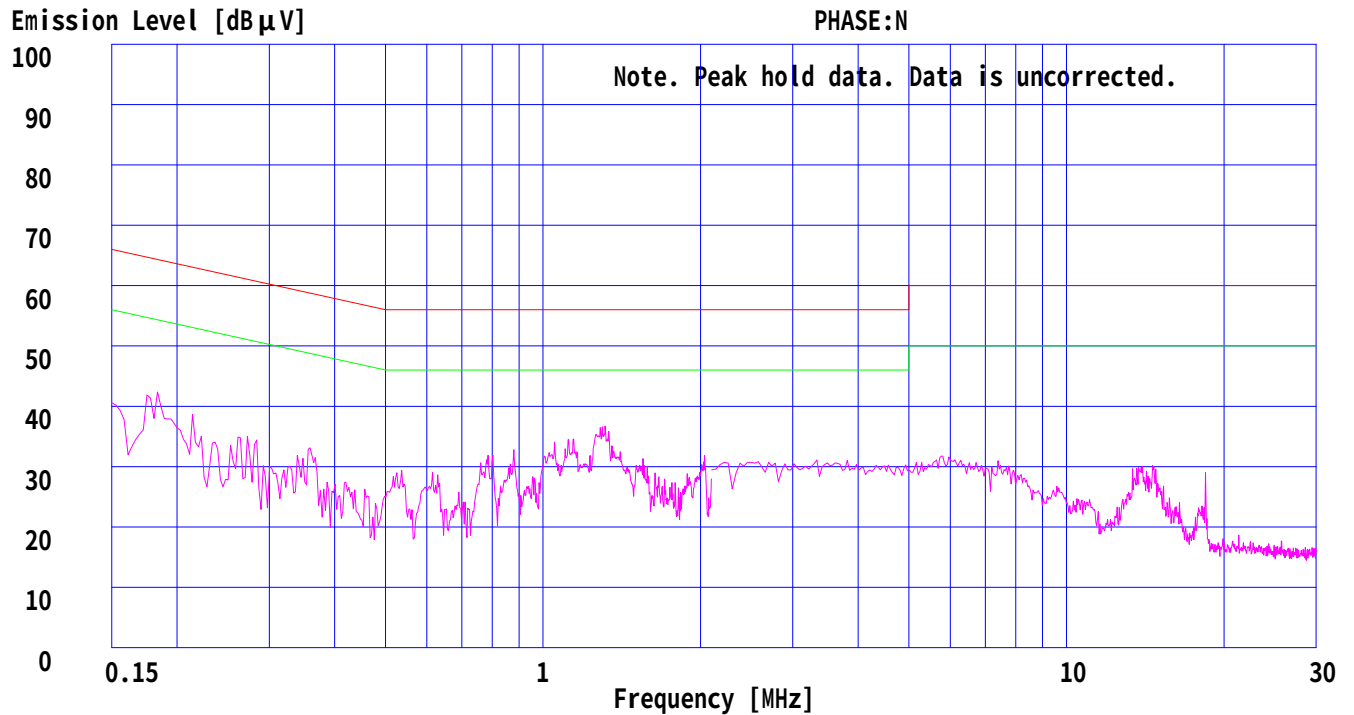
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 1+Rec.
Remarks : 5Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation 1 : FCC Part15 CLASS B(02-157)
Regulation 2 : None

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 1+Rec.
Remarks : 1Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB μV]	AV [dB]
1.	0.1702	43.9	-	45.2	-	0.1	0.0	0.0	45.3	-	65.0	55.0	19.7	-
2.	0.6939	20.2	-	30.4	-	0.2	0.1	0.0	30.7	-	56.0	46.0	25.3	-
3.	1.3962	29.4	-	31.7	-	0.2	0.2	0.0	32.1	-	56.0	46.0	23.9	-
4.	2.5882	28.0	-	27.4	-	0.2	0.2	0.0	28.4	-	56.0	46.0	27.6	-
5.	5.8572	25.8	-	27.3	-	0.4	0.3	0.0	28.0	-	60.0	50.0	32.0	-
6.	13.4118	19.7	-	22.9	-	1.0	0.4	0.0	24.3	-	60.0	50.0	35.7	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

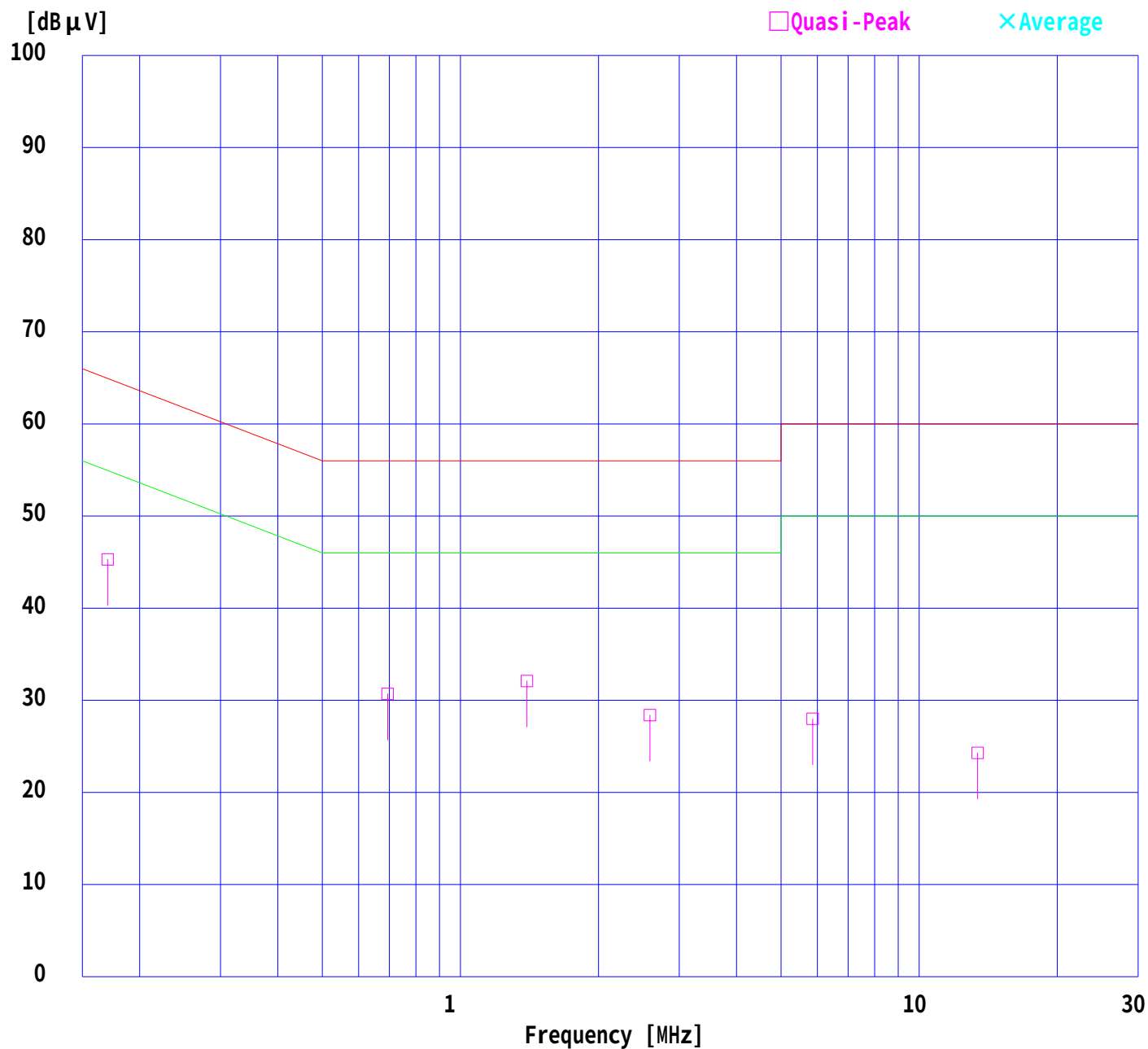
Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

UL Apex Co., Ltd.
YOKOWA No.2 SHIELD TEST ROOM
Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 1+Rec.
Remarks : 1Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST CHART

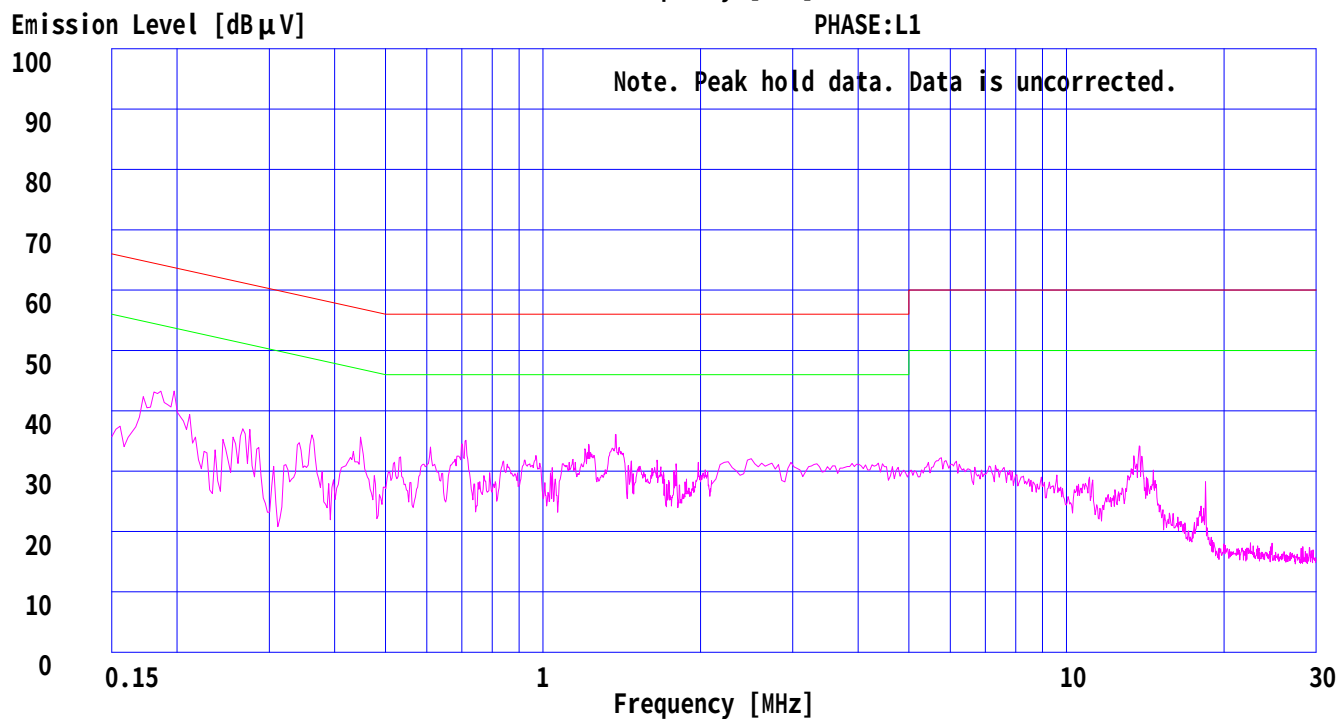
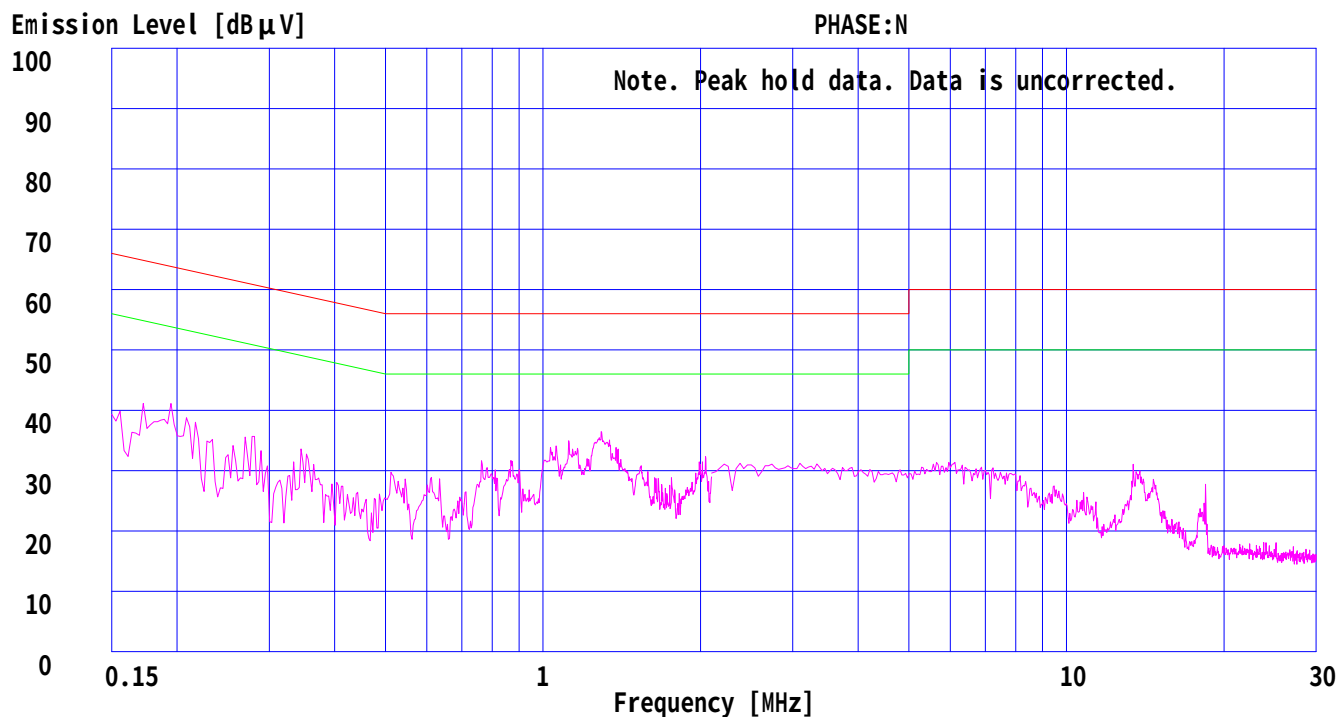
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 1+Rec.
Remarks : 1Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation 1 : FCC Part15 CLASS B(02-157)
Regulation 2 : None

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 2+Rec.
Remarks : 5Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB μV]	AV [dB]
1.	0.1732	43.9	-	45.1	-	0.1	0.0	0.0	45.2	-	64.8	54.8	19.6	-
2.	0.3428	30.0	-	30.2	-	0.2	0.1	0.0	30.5	-	59.1	49.1	28.6	-
3.	0.6901	20.2	-	30.2	-	0.2	0.1	0.0	30.5	-	56.0	46.0	25.5	-
4.	1.3944	29.6	-	31.5	-	0.2	0.2	0.0	31.9	-	56.0	46.0	24.1	-
5.	2.5127	28.4	-	30.3	-	0.2	0.2	0.0	30.7	-	56.0	46.0	25.3	-
6.	13.7224	20.5	-	23.0	-	1.1	0.4	0.0	24.5	-	60.0	50.0	35.5	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

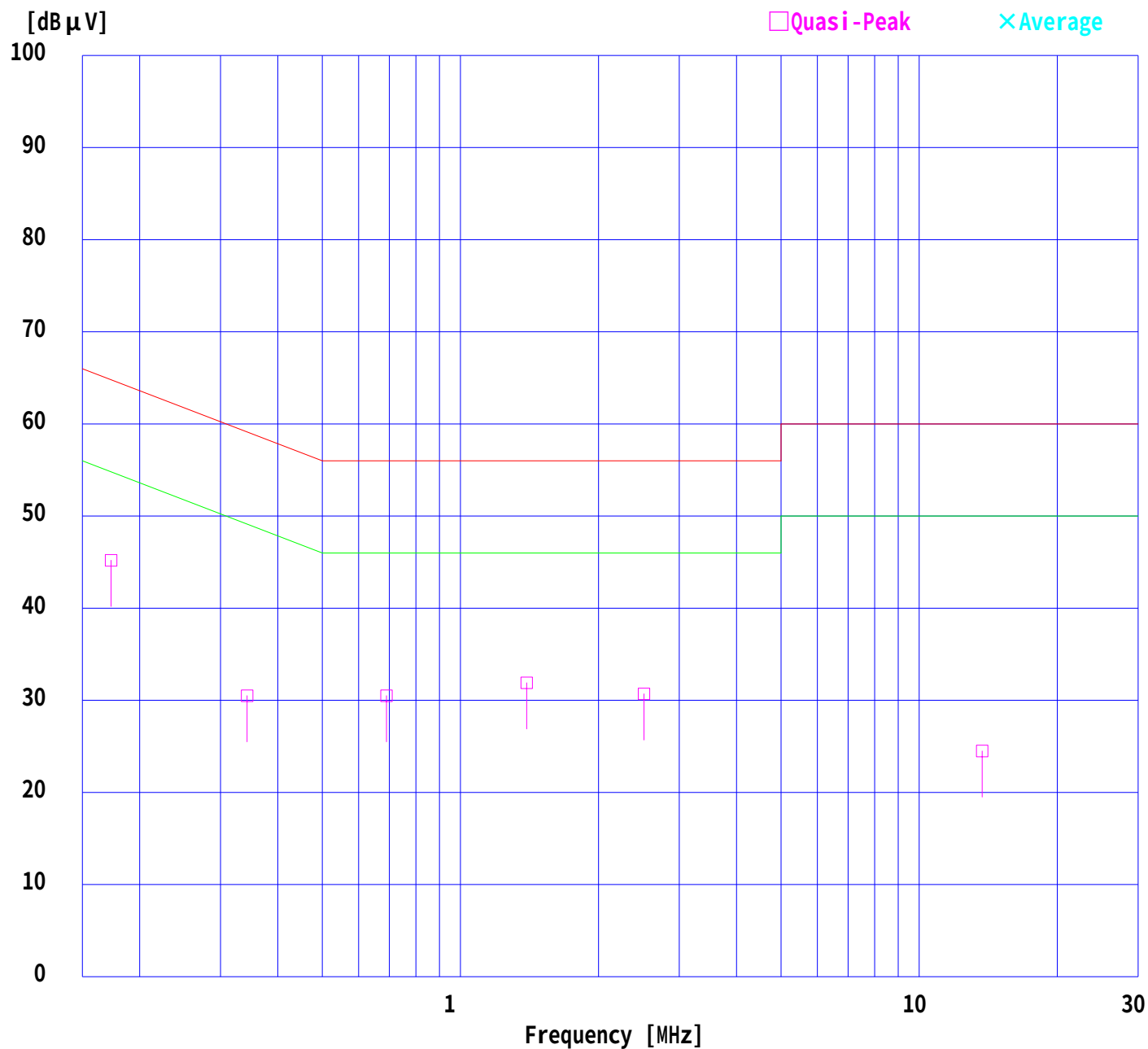
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 2+Rec.
Remarks : 5Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST CHART

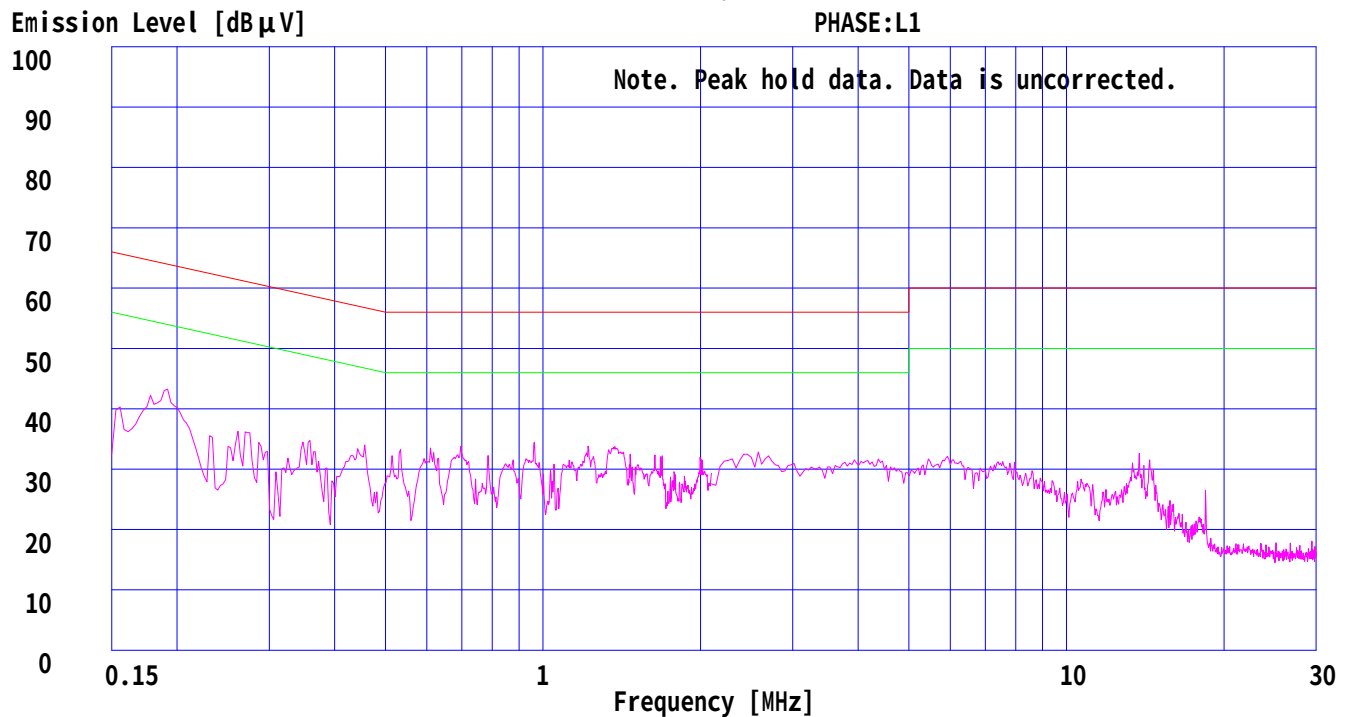
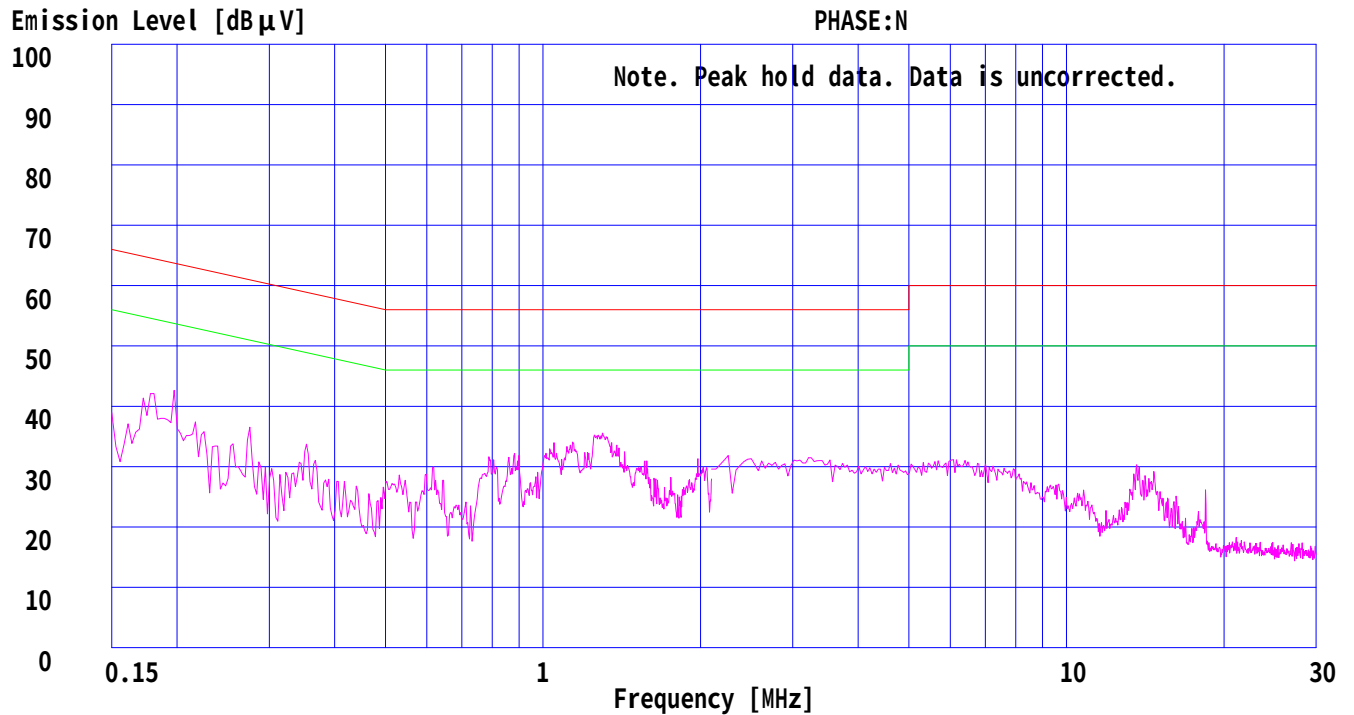
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 2+Rec.
Remarks : 5Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation 1 : FCC Part15 CLASS B(02-157)
Regulation 2 : None

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 2+Rec.
Remarks : 1Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB μV]	AV [dB]
1.	0.1714	43.8	-	45.3	-	0.1	0.0	0.0	45.4	-	64.9	54.9	19.5	-
2.	0.7005	27.0	-	30.1	-	0.2	0.1	0.0	30.4	-	56.0	46.0	25.6	-
3.	1.2239	33.0	-	29.2	-	0.2	0.2	0.0	33.4	-	56.0	46.0	22.6	-
4.	2.5106	28.7	-	30.1	-	0.2	0.2	0.0	30.5	-	56.0	46.0	25.5	-
5.	5.8973	26.6	-	26.5	-	0.4	0.3	0.0	27.3	-	60.0	50.0	32.7	-
6.	13.6016	20.7	-	22.1	-	1.1	0.4	0.0	23.6	-	60.0	50.0	36.4	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

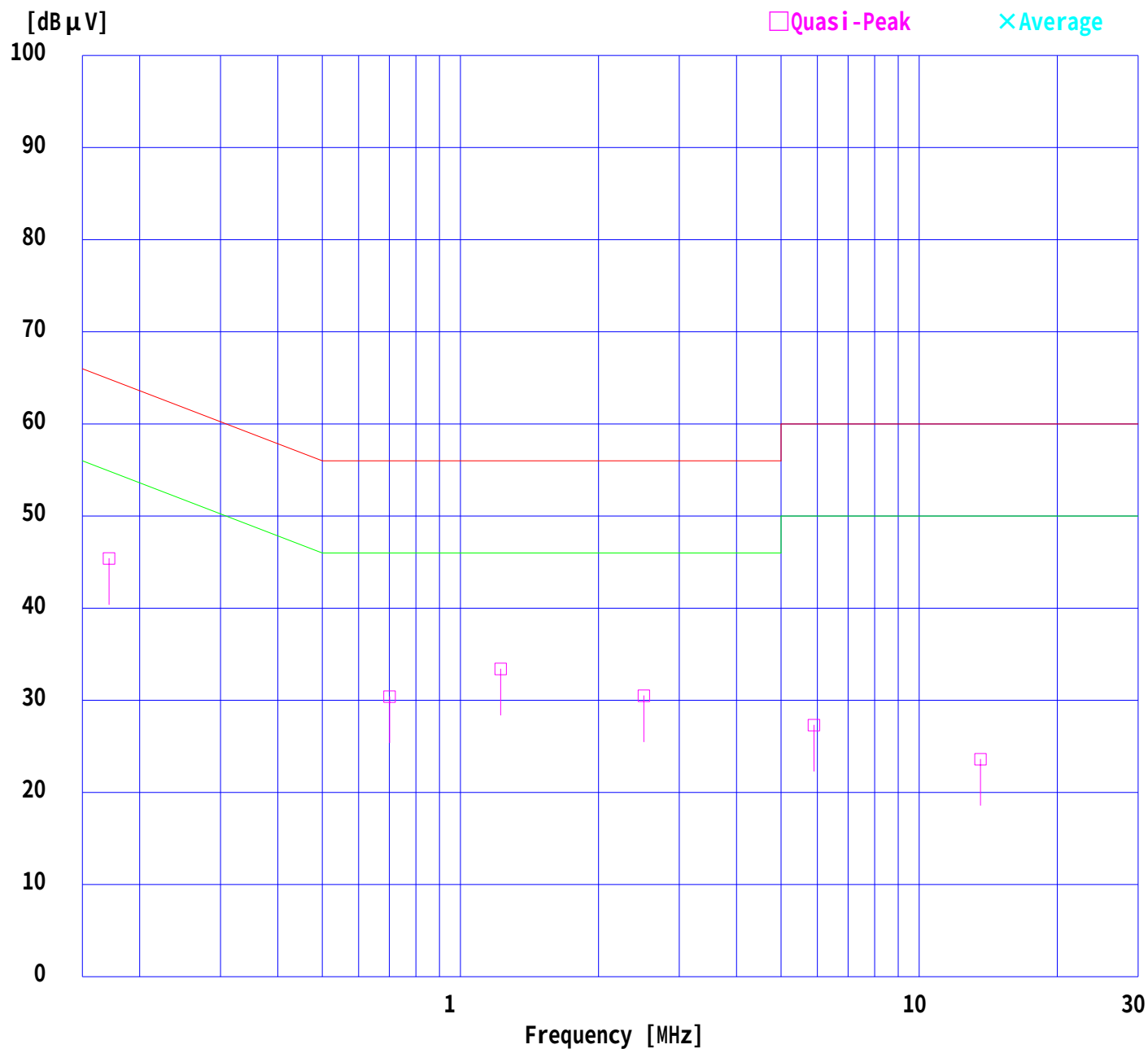
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 2+Rec.
Remarks : 1Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST CHART

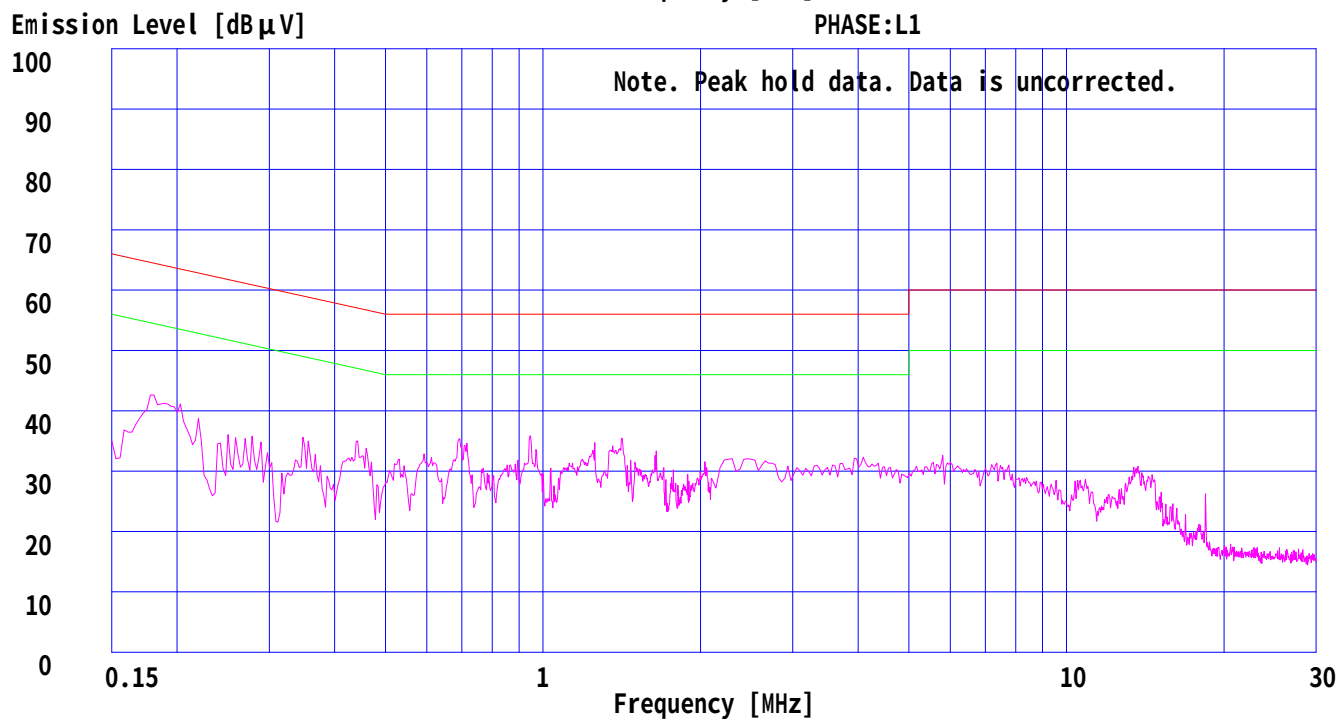
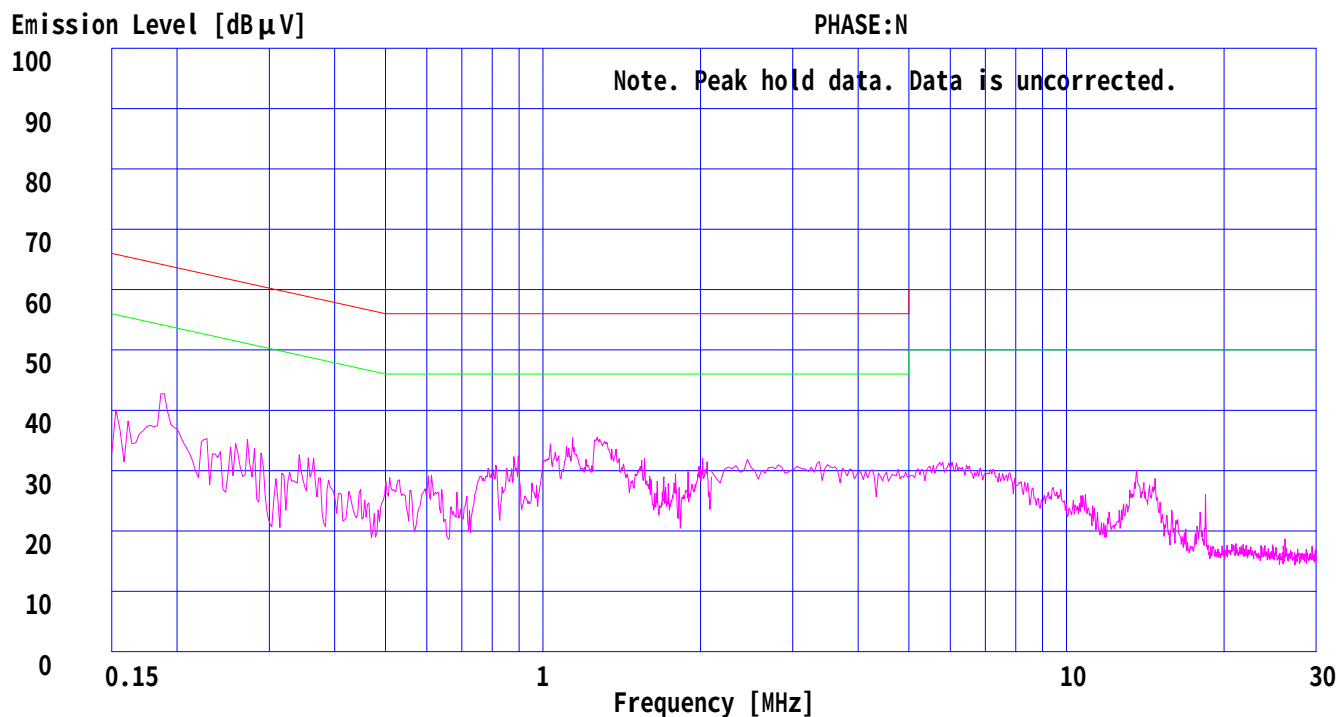
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 2+Rec.
Remarks : 1Vp-p
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation 1 : FCC Part15 CLASS B(02-157)
Regulation 2 : None

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Play
Remarks :
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB μV]	AV [dB]
1.	0.1855	42.0	-	41.8	-	0.1	0.0	0.0	42.1	-	64.2	54.2	22.1	-
2.	0.3013	31.3	-	30.8	-	0.2	0.0	0.0	31.5	-	60.2	50.2	28.7	-
3.	0.7378	18.7	-	28.1	-	0.2	0.1	0.0	28.4	-	56.0	46.0	27.6	-
4.	1.4443	26.9	-	30.4	-	0.2	0.2	0.0	30.8	-	56.0	46.0	25.2	-
5.	2.4044	28.8	-	29.1	-	0.2	0.2	0.0	29.5	-	56.0	46.0	26.5	-
6.	13.4573	15.4	-	21.3	-	1.0	0.4	0.0	22.7	-	60.0	50.0	37.3	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

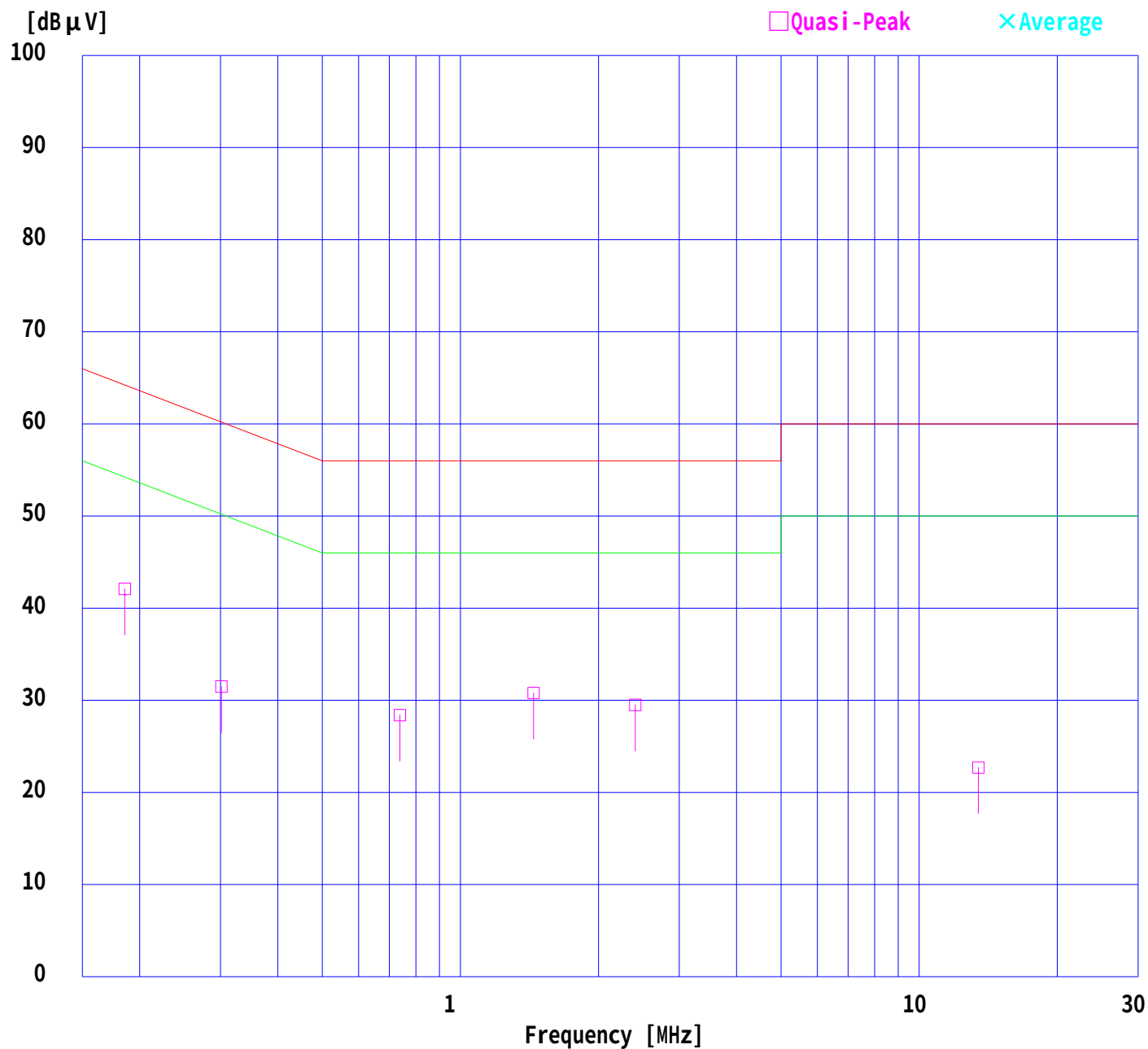
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Play
Remarks :
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST CHART

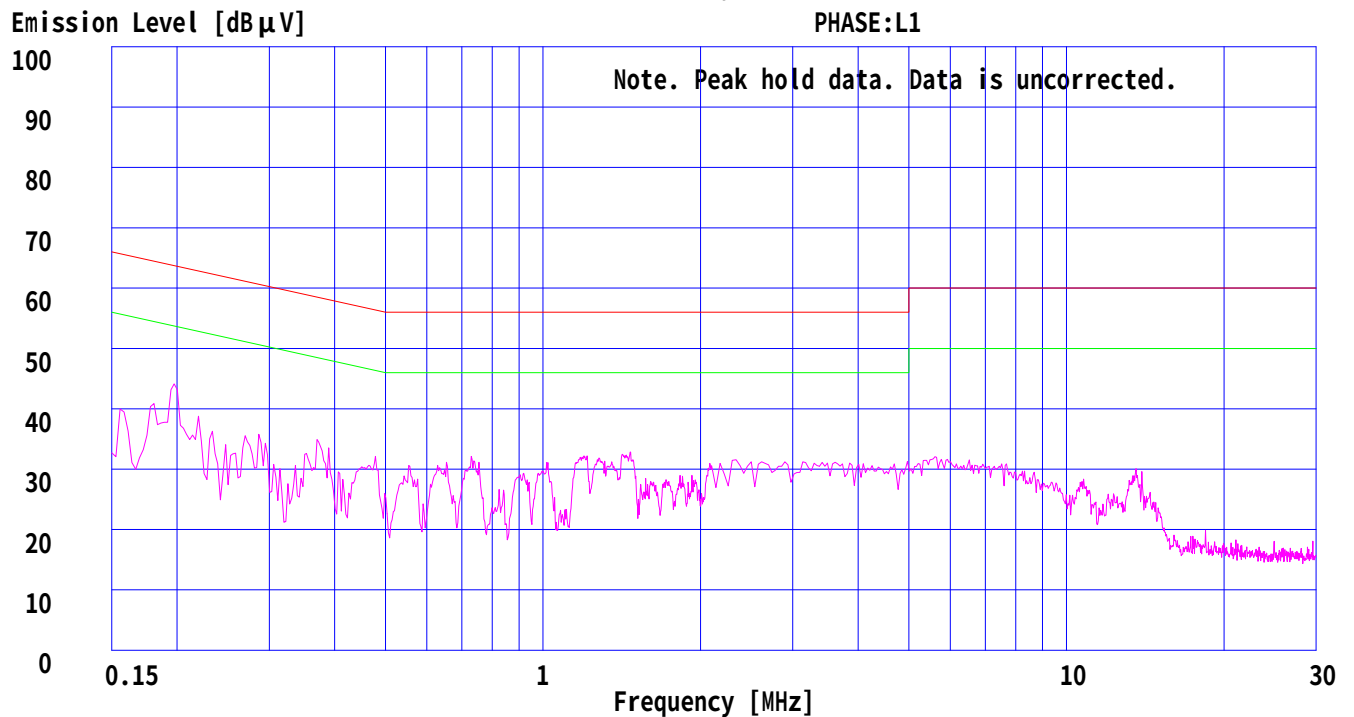
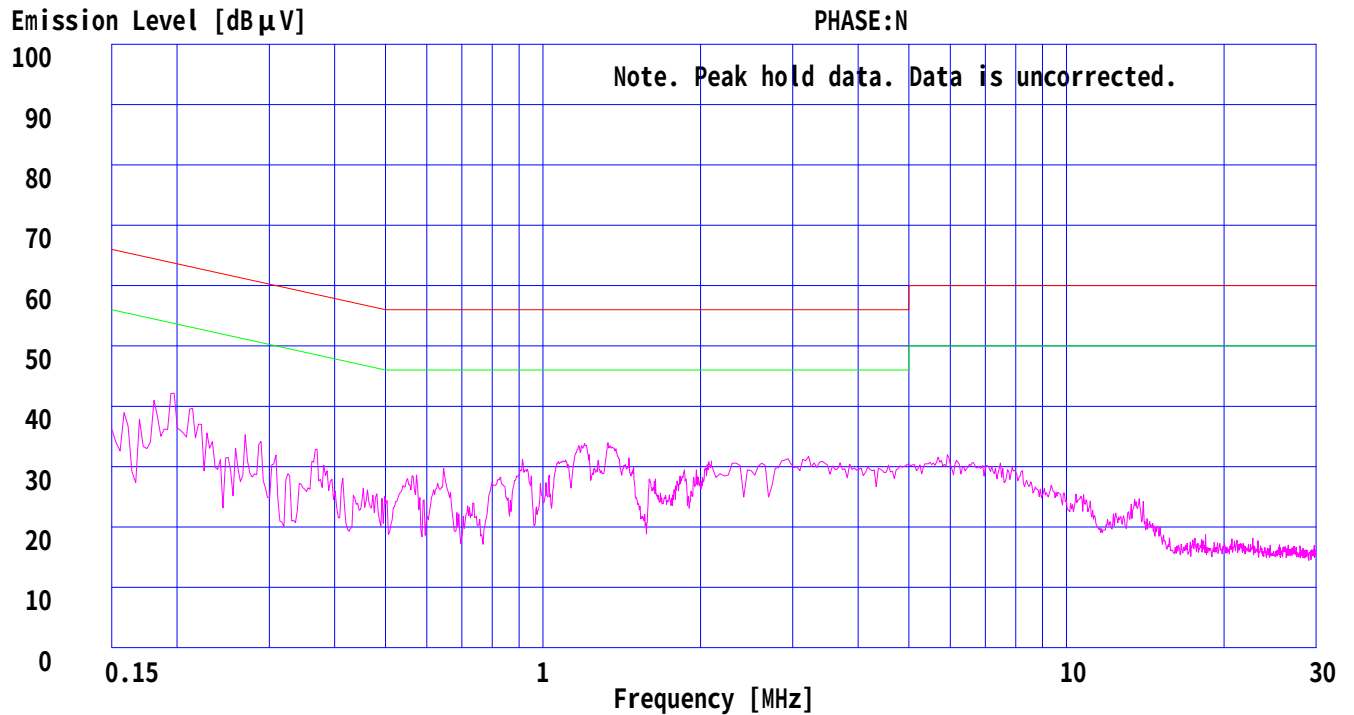
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Play
Remarks :
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation 1 : FCC Part15 CLASS B(02-157)
Regulation 2 : None

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST

UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama

No.	FREQ. [MHz]	READING(N)		READING(L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB μV]	AV [dB]
1.	0.1658	42.9	-	43.2	-	0.1	0.0	0.0	43.3	-	65.2	55.2	21.9	-
2.	0.2021	38.7	-	39.0	-	0.2	0.0	0.0	39.2	-	63.5	53.5	24.3	-
3.	0.6689	24.9	-	28.3	-	0.2	0.1	0.0	28.6	-	56.0	46.0	27.4	-
4.	1.3781	29.2	-	30.7	-	0.2	0.2	0.0	31.1	-	56.0	46.0	24.9	-
5.	2.7594	27.5	-	27.8	-	0.2	0.2	0.0	28.2	-	56.0	46.0	27.8	-
6.	10.5100	18.1	-	20.4	-	0.7	0.4	0.0	21.5	-	60.0	50.0	38.5	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

Except for the above table: adequate margin data below the limits.

DATA OF CONDUCTION TEST

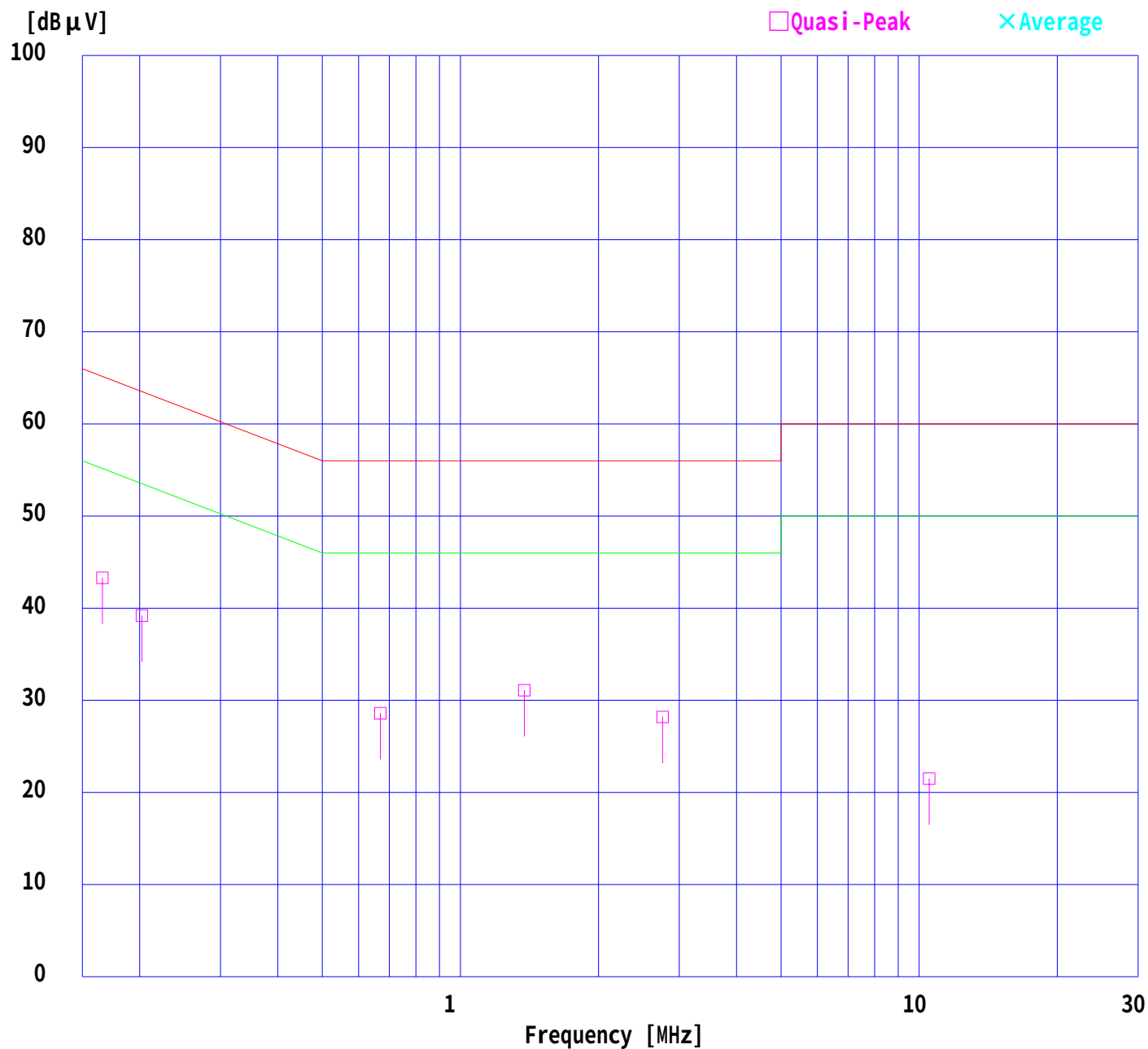
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation : FCC Part15 CLASS B(02-157)

Engineer : Yuichi Kaneyama



DATA OF CONDUCTION TEST CHART

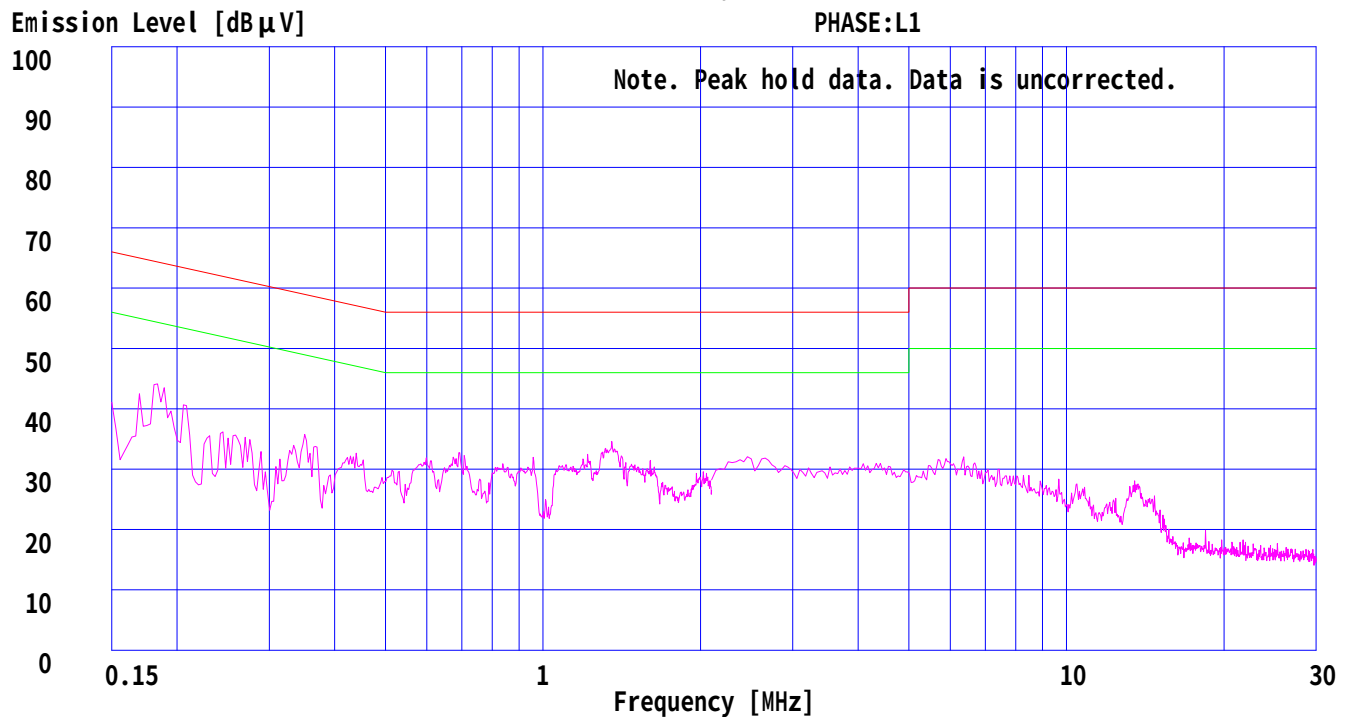
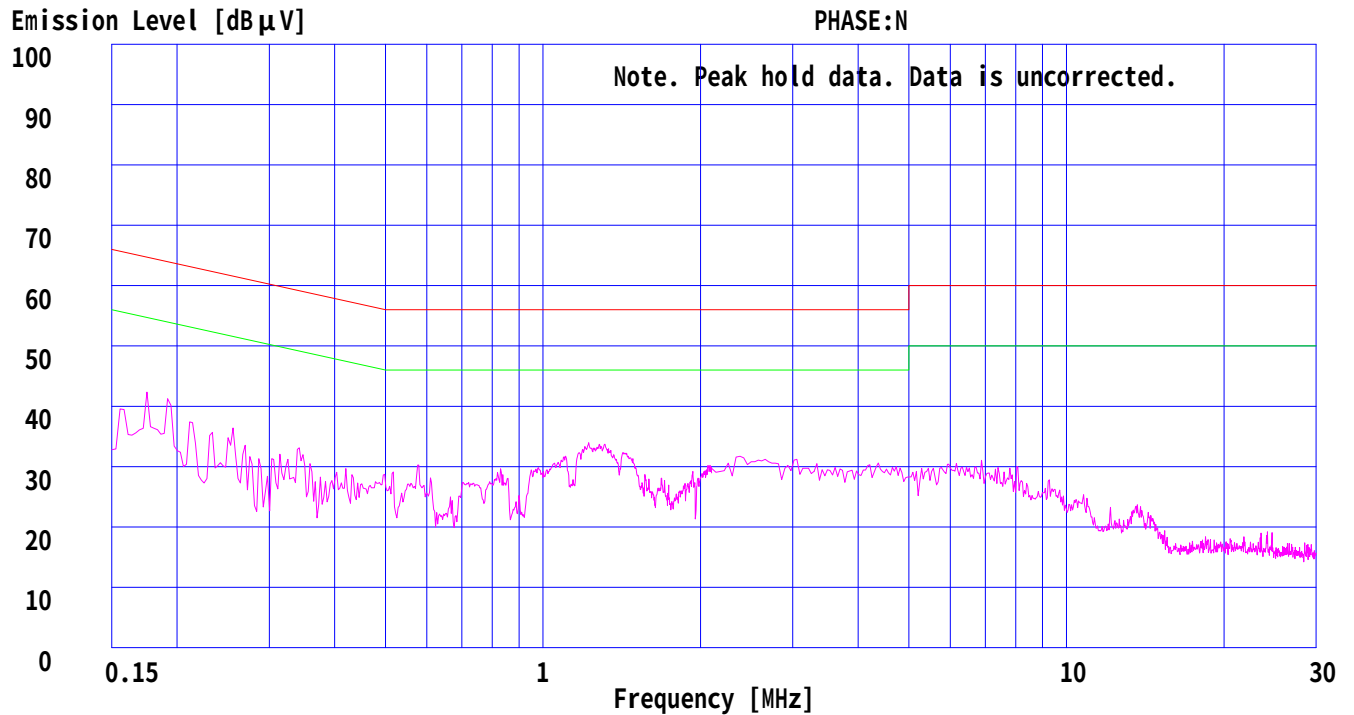
UL Apex Co., Ltd.

YOKOWA No.2 SHIELD TEST ROOM

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 7/27/2004
Phase : Single Phase
Temperature : 23 °C
Humidity : 65 %
Regulation 1 : FCC Part15 CLASS B(02-157)
Regulation 2 : None

Engineer : Yuichi Kaneyama



DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.1 Open Test Site

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : PV-D744S-A
POWER : AC120V/60Hz
DESCRIPTION : TV Reception+Rec.

REPORT No. : 24LE0253-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : July 26, 2004
TEMP./HUMID. : 23°C/37%
ENGINEER : Seigo Kakehi

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT	MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]	HOR.		VER.	
		[dBuV]						[dBuV/m]				[dBuV/m]	[dB]			
VHF																
2	101	24.6	24.8			BC	-11.5	13.1	13.3			43.5		30.4	30.2	
	202	24.3	22.8			BC	-3.5	20.8	19.3			43.5		22.7	24.2	
	303					LO	-5.7					46.0		>15.0		
	404				LO	-2.2				46.0						
	505				LO	-0.4				46.0						
	606				LO	2.0				46.0						
	707				LO	4.4				46.0						
	808				LO	5.3				46.0						
	909				LO	8.2				46.0						
		READING(PK)	READING(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)					
		HOR.	VER.	TYPE	[dBuV]	HOR.	VER.	HOR.	VER.	HOR.	VER.	HOR.	VER.			
		[dBuV]										[dB]		[dB]	[dB]	
	1010			HO	-9.3			74.0	54.0	>27.0	>10.0					
	1111			HO	-8.6			74.0	54.0							
	1212			HO	-7.9			74.0	54.0							
	1313			HO	-7.3			74.0	54.0							
	1414			HO	-6.5			74.0	54.0							
	1515			HO	-5.9			74.0	54.0							
	1616			HO	-5.0			74.0	54.0							
CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT	MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]	HOR.		VER.	
		[dBuV]						[dBuV/m]				[dBuV/m]	[dB]			
3	107	25.1	28.2			BC	-10.5	14.6	17.7			43.5		28.9	25.8	
	214	23.7	22.5			BC	-3.3	20.4	19.2			43.5		23.1	24.3	
	321					LO	-5.1					46.0		>15.0		
	428				LO	-1.8				46.0						
	535				LO	0.3				46.0						
	642				LO	2.9				46.0						
	749				LO	4.7				46.0						
	856				LO	6.8				46.0						
	963				LO	9.7				54.0						
		READING(PK)	READING(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)					
		HOR.	VER.	TYPE	[dBuV]	HOR.	VER.	HOR.	VER.	HOR.	VER.	HOR.	VER.			
		[dBuV]										[dB]		[dB]	[dB]	
	1070			HO	-8.8			74.0	54.0	>27.0	>10.0					
	1177			HO	-8.2			74.0	54.0							
	1284			HO	-7.4			74.0	54.0							
	1391			HO	-6.7			74.0	54.0							
	1498			HO	-6.0			74.0	54.0							
	1605			HO	-5.1			74.0	54.0							
	CH.	FREQ	READING(QP)				ANT	C.Factor	RESULT(QP)				LIMIT	MARGIN(QP)		
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]	HOR.		VER.	
		[dBuV]						[dBuV/m]				[dBuV/m]	[dB]			
4	113	24.4	25.1			BC	-9.4	15.0	15.7			43.5		28.5	27.8	
	226					BC	-3.2					46.0		>15.0		
	339				LO	-4.5				46.0						
	452				LO	-1.4				46.0						
	565				LO	1.0				46.0						
	678				LO	3.8				46.0						
	791				LO	5.0				46.0						
	904				LO	8.1				46.0						
		READING(PK)	READING(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)					
		HOR.	VER.	TYPE	[dBuV]	HOR.	VER.	HOR.	VER.	HOR.	VER.	HOR.	VER.			
		[dBuV]										[dB]		[dB]	[dB]	
	1017			HO	-9.2			74.0	54.0	>27.0	>10.0					
	1130			HO	-8.5			74.0	54.0							
	1243			HO	-7.6			74.0	54.0							
	1356			HO	-7.0			74.0	54.0							
	1469			HO	-6.2			74.0	54.0							
	1582			HO	-5.2			74.0	54.0							

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.1 Open Test Site

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : PV-D744S-A
POWER : AC120V/60Hz
DESCRIPTION : TV Reception+Rec.

REPORT No. : 24LE0253-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : July 26, 2004
TEMP./HUMID. : 23°C/37%
ENGINEER : Seigo Kakehi

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ	READINNG(QP)			ANT	C.Factor	RESULT(QP)			LIMIT		MARGIN(QP)					
	[MHz]	HOR.	VER.		TYPE	[dBuV]	HOR.	VER.		[QP]		HOR.	VER.				
		[dBuV]					[dBuV/m]			[dBuV/m]		[dB]	[dB]				
VHF																	
5	123	22.7	23.9			BC	-8.0	14.7	15.9			43.5		28.8	27.6		
	246					BC	-2.9					46.0		>15.0			
	369					LO	-3.3					46.0					
	492					LO	-0.7					46.0					
	615					LO	2.2					46.0					
	738					LO	4.6					46.0					
	861					LO	6.8					46.0					
	984					LO	10.4					54.0					
		READINNG(PK)		READINNG(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)	
		HOR. VER.		HOR. VER.		TYPE		HOR. VER.		HOR. VER.		[PK]	[AV]	HOR. VER.		HOR. VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	
		1107				HO	-8.6					74.0	54.0	>27.0	>10.0		
		1230				HO	-7.8					74.0	54.0				
		1353				HO	-7.0					74.0	54.0				
	1476	HO				-6.2	74.0					54.0					
	1599	HO				-5.1	74.0					54.0					
CH.	FREQ	READINNG(QP)			ANT	C.Factor	RESULT(QP)			LIMIT		MARGIN(QP)					
	[MHz]	HOR. VER.			TYPE		HOR. VER.			[QP]		HOR. VER.					
		[dBuV]				[dBuV]	[dBuV/m]			[dBuV/m]		[dB]		[dB]			
6	129	23.3	24.2			BC	-7.7	15.6	16.5			43.5		27.9	27.0		
	258					BC	-2.3					46.0		>15.0			
	387					LO	-2.7					46.0					
	516					LO	-0.1					46.0					
	645					LO	3.0					46.0					
	774					LO	4.9					46.0					
	903					LO	8.0					46.0					
		READINNG(PK)		READINNG(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)	
		HOR. VER.		HOR. VER.		TYPE		HOR. VER.		HOR. VER.		[PK]	[AV]	HOR. VER.		HOR. VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	
		1032				HO	-9.1					74.0	54.0	>27.0	>10.0		
		1161				HO	-8.2					74.0	54.0				
		1290				HO	-7.4					74.0	54.0				
		1419				HO	-6.5					74.0	54.0				
	1548	HO				-5.6	74.0					54.0					
	1677	HO				-4.5	74.0					54.0					
CH.	FREQ	READINNG(QP)			ANT	C.Factor	RESULT(QP)			LIMIT		MARGIN(QP)					
	[MHz]	HOR. VER.			TYPE		HOR. VER.			[QP]		HOR. VER.					
		[dBuV]				[dBuV]	[dBuV/m]			[dBuV/m]		[dB]		[dB]			
7	221	24.5	22.6			BC	-3.3	21.2	19.3			46.0		24.8	26.7		
	442					LO	-1.4					46.0		>15.0			
	663					LO	3.5					46.0					
	884					LO	7.5					46.0					
		READINNG(PK)		READINNG(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)	
		HOR. VER.		HOR. VER.		TYPE		HOR. VER.		HOR. VER.		[PK]	[AV]	HOR. VER.		HOR. VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	
		1105				HO	-8.6					74.0	54.0	>27.0	>10.0		
	1326	HO				-7.1	74.0					54.0					
	1547	HO				-5.6	74.0					54.0					
CH.	FREQ	READINNG(QP)				ANT	C.Factor	RESULT(QP)				LIMIT		MARGIN(QP)			
	[MHz]	HOR. VER.			TYPE		HOR. VER.			[QP]		HOR. VER.					
		[dBuV]				[dBuV]	[dBuV/m]			[dBuV/m]		[dB]		[dB]			
8	227	22.6	22.0			BC	-3.2	19.4	18.8			46.0		26.6	27.2		
	454					LO	-1.4					46.0		>15.0			
	681					LO	3.9					46.0					
	908					LO	8.2					46.0					
		READINNG(PK)		READINNG(AV)		ANT	C.Factor	RESULT(PK)		RESULT(AV)		LIMIT	LIMIT	MARGIN(PK)		MARGIN(AV)	
		HOR. VER.		HOR. VER.		TYPE		HOR. VER.		HOR. VER.		[PK]	[AV]	HOR. VER.		HOR. VER.	
		[dBuV]		[dBuV]			[dBuV]	[dBuV/m]		[dBuV/m]		[dBuV/m]	[dBuV/m]	[dB]		[dB]	
		1135				HO	-8.5					74.0	54.0	>27.0	>10.0		
	1362	HO				-7.0	74.0					54.0					
	1589	HO				-5.2	74.0					54.0					

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.1 Open Test Site

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : PV-D744S-A
POWER : AC120V/60Hz
DESCRIPTION : TV Reception+Rec.

REPORT No. : 24LE0253-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : July 26, 2004
TEMP./HUMID. : 23°C/37%
ENGINEER : Seigo Kakehi

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ	READINNG(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]			HOR.	VER.		
		[dBuV]										[dBuV/m]			[dB]	[dB]		
VHF																		
9	233	22.5	22.0			BC	-3.2	19.3	18.8			46.0			26.7	27.2		
	466					LO	-1.2					46.0			>15.0			
	699					LO	4.4					46.0						
	932					LO	8.9					46.0						
		READINNG(PK)	READINNG(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)							
		HOR. VER.	HOR. VER.	TYPE	[dBuV]	HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.							
		[dBuV]	[dBuV]			[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]	[dB]					
	1165				HO	-8.2					74.0	54.0	>27.0		>10.0			
	1398				HO	-6.7					74.0	54.0						
	1631				HO	-4.9					74.0	54.0						
CH.	FREQ	READINNG(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]			HOR.	VER.		
		[dBuV]					[dBuV]		[dBuV/m]			[dBuV/m]			[dB]	[dB]		
10	239	22.7	22.4			BC	-3.0	19.7	19.4			46.0			26.3	26.6		
	478					LO	-0.9					46.0			>15.0			
	717					LO	4.5					46.0						
	956					LO	9.6					46.0						
		READINNG(PK)	READINNG(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)							
		HOR. VER.	HOR. VER.	TYPE	[dBuV]	HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.							
		[dBuV]	[dBuV]			[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]	[dB]					
	1195				HO	-8.1					74.0	54.0	>27.0		>10.0			
	1434				HO	-6.4					74.0	54.0						
	1673				HO	-4.5					74.0	54.0						
CH.	FREQ	READINNG(QP)				ANT	257.0	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]			HOR.	VER.		
		[dBuV]					[dBuV]		[dBuV/m]			[dBuV/m]			[dB]	[dB]		
11	245	22.4	22.0			BC	-2.9	19.5	19.1			46.0			26.5	26.9		
	490					LO	-0.7					46.0			>15.0			
	735					LO	4.5					46.0						
	980					LO	10.3					54.0						
		READINNG(PK)	READINNG(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)							
		HOR. VER.	HOR. VER.	TYPE	[dBuV]	HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.							
		[dBuV]	[dBuV]			[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]	[dB]					
	1225				HO	-7.8					74.0	54.0	>27.0		>10.0			
	1470				HO	-6.2					74.0	54.0						
CH.	FREQ	READINNG(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]			HOR.	VER.		
		[dBuV]					[dBuV]		[dBuV/m]			[dBuV/m]			[dB]	[dB]		
12	251	21.9	21.8			BC	-2.8	19.1	19.0			46.0			26.9	27.0		
	502					LO	-0.5					46.0			>15.0			
	753					LO	4.7					46.0						
		READINNG(PK)	READINNG(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)							
		HOR. VER.	HOR. VER.	TYPE	[dBuV]	HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.							
		[dBuV]	[dBuV]			[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]	[dB]					
	1004				HO	-9.3					74.0	54.0	>27.0		>10.0			
	1255				HO	-7.6					74.0	54.0						
	1506				HO	-6.0					74.0	54.0						
CH.	FREQ	READINNG(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.			TYPE	[dBuV]	HOR.	VER.			[QP]			HOR.	VER.		
		[dBuV]					[dBuV]		[dBuV/m]			[dBuV/m]			[dB]	[dB]		
13	257	22.5	23.6			BC	-2.4	20.1	21.2			46.0			25.9	24.8		
	514					LO	-0.2					46.0			>15.0			
	771					LO	4.8					46.0						
		READINNG(PK)	READINNG(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)							
		HOR. VER.	HOR. VER.	TYPE	[dBuV]	HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.							
		[dBuV]	[dBuV]			[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB]	[dB]	[dB]	[dB]					
	1028				HO	-9.2					74.0	54.0	>27.0		>10.0			
	1285				HO	-7.4					74.0	54.0						
	1542				HO	-5.6					74.0	54.0						

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.1 Open Test Site

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : PV-D744S-A
POWER : AC120V/60Hz
DESCRIPTION : TV Reception+Rec.

REPORT No. : 24LE0253-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : July 26, 2004
TEMP./HUMID. : 23°C/37%
ENGINEER : Seigo Kakehi

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READINNG(QP) HOR. VER. [dBuV]		ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]		LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB] [dB]	
UHF											
14	517	23.9	30.8		LO	-0.1	23.8	30.7		46.0	22.2 15.3
		READINNG(PK) HOR. VER. [dBuV]	READINNG(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]
	1034			HO	-9.1			74.0	54.0	>27.0	>10.0
	1551			HO	-5.5			74.0	54.0		
19	547	23.9	29.1		LO	0.7	24.6	29.8		46.0	21.4 16.2
		READINNG(PK) HOR. VER. [dBuV]	READINNG(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]
	1094			HO	-8.6			74.0	54.0	>27.0	>10.0
	1641			HO	-4.8			74.0	54.0		
28	601	23.6	26.9		LO	1.9	25.5	28.8		46.0	20.5 17.2
		READINNG(PK) HOR. VER. [dBuV]	READINNG(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]
	1202			HO	-8.0			74.0	54.0	>27.0	>10.0
36	649	23.2	25.1		LO	3.2	26.4	28.3		46.0	19.6 17.7
		READINNG(PK) HOR. #NAME? [dBuV]	READINNG(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]
	1298			HO	-7.4			74.0	54.0	>27.0	>10.0
44	697	24.4	24.5		LO	4.3	28.7	28.8		46.0	17.3 17.2
		READINNG(PK) HOR. VER. [dBuV]	READINNG(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]
	1394			HO	-6.7			74.0	54.0	>27.0	>10.0
53	751	24.8	23.9		LO	4.7	29.5	28.6		46.0	16.5 17.4
		READINNG(PK) HOR. VER. [dBuV]	READINNG(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]
	1502			HO	-6.0			74.0	54.0	>27.0	>10.0
61	799	22.1	22.1		LO	5.0	27.1	27.1		46.0	18.9 18.9
		READINNG(PK) HOR. VER. [dBuV]	READINNG(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]
	1598			HO	-5.1			74.0	54.0	>27.0	>10.0
69	847	24.2	23.8		LO	6.4	30.6	30.2		46.0	15.4 15.8
		READINNG(PK) HOR. VER. [dBuV]	READINNG(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]
	1694			HO	-4.2			74.0	54.0	>27.0	>10.0

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.1 Open Test Site

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : PV-D744S-A
POWER : AC120V/60Hz
DESCRIPTION : TV Reception+Rec.

REPORT No. : 24LE0253-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : July 26, 2004
TEMP./HUMID. : 23°C/37%
ENGINEER : Seigo Takehi

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ	READINNG(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.	[dBuV]		TYPE	[dBuV]	HOR.	VER.	[dBuV/m]		[QP]	[dBuV/m]		HOR.	VER.	[dB] [dB]	
CATV																		
1	119	23.2	24.0			BC	-8.5	14.7	15.5			43.5			28.8	28.0		
	238					BC	-3.0					46.0			>15.0			
	357					LO	-3.7					46.0						
	476					LO	-1.0					46.0						
	595					LO	1.7					46.0						
	714					LO	4.4					46.0						
	833					LO	6.1					46.0						
	952	LO	9.5	46.0														
		READINNG(PK)	READINNG(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)							
		HOR. VER.	HOR. VER.	TYPE	[dBuV]	HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.							
		[dBuV]		[dBuV]			[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB] [dB]	[dB] [dB]						
	1071					HO	-8.8					74.0	54.0	>27.0	>10.0			
	1190					HO	-8.1					74.0	54.0					
	1309					HO	-7.3					74.0	54.0					
	1428					HO	-6.4					74.0	54.0					
1547	HO					-5.6	74.0					54.0						
1666	HO					-4.5	74.0					54.0						
CH.	FREQ	READINNG(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.	[dBuV]		TYPE	[dBuV]	HOR.	VER.	[dBuV/m]		[QP]	[dBuV/m]		HOR.	VER.	[dB] [dB]	
95	137	23.5	22.5			BC	-7.1	16.4	15.4			43.5			27.1	28.1		
	274					BC	-1.2					46.0			>15.0			
	411					LO	-2.1					46.0						
	548					LO	0.7					46.0						
	685					LO	4.0					46.0						
	822					LO	5.7					46.0						
	959					LO	9.6					46.0						
		READINNG(PK)	READINNG(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)							
		HOR. VER.	HOR. VER.	TYPE	[dBuV]	HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.							
		[dBuV]		[dBuV]			[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB] [dB]	[dB] [dB]						
	1096					HO	-8.6					74.0	54.0	>27.0	>10.0			
	1233					HO	-7.8					74.0	54.0					
	1370					HO	-6.8					74.0	54.0					
	1507					HO	-6.0					74.0	54.0					
	1644					HO	-4.8					74.0	54.0					
CH.	FREQ	READINNG(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)			
	[MHz]	HOR.	VER.	[dBuV]		TYPE	[dBuV]	HOR.	VER.	[dBuV/m]		[QP]	[dBuV/m]		HOR.	VER.	[dB] [dB]	
97	149	22.8	23.5			BC	-6.4	16.4	17.1			43.5			27.1	26.4		
	298					BC	0.5					46.0			>15.0			
	447					LO	-1.5					46.0						
	596					LO	1.7					46.0						
	745					LO	4.7					46.0						
	894					LO	7.8					46.0						
		READINNG(PK)	READINNG(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)							
		HOR. VER.	HOR. VER.	TYPE	[dBuV]	HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.							
		[dBuV]		[dBuV]			[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB] [dB]	[dB] [dB]						
	1043					HO	-9.1					74.0	54.0	>27.0	>10.0			
	1192					HO	-8.1					74.0	54.0					
	1341					HO	-7.1					74.0	54.0					
	1490					HO	-6.1					74.0	54.0					
	1639					HO	-4.8					74.0	54.0					
	CH.	FREQ	READINNG(QP)				ANT	C.Factor	RESULT(QP)				LIMIT			MARGIN(QP)		
	[MHz]	HOR.	VER.	[dBuV]		TYPE	[dBuV]	HOR.	VER.	[dBuV/m]		[QP]	[dBuV/m]		HOR.	VER.	[dB] [dB]	
99	161	22.7	22.7			BC	-5.9	16.8	16.8			43.5			26.7	26.7		
	322					LO	-5.1					46.0			>15.0			
	483					LO	-0.8					46.0						
	644					LO	3.0					46.0						
	805					LO	5.2					46.0						
	966					LO	9.9					46.0						
		READINNG(PK)	READINNG(AV)	ANT	C.Factor	RESULT(PK)	RESULT(AV)	LIMIT	LIMIT	MARGIN(PK)	MARGIN(AV)							
		HOR. VER.	HOR. VER.	TYPE	[dBuV]	HOR. VER.	HOR. VER.	[PK]	[AV]	HOR. VER.	HOR. VER.							
		[dBuV]		[dBuV]			[dBuV/m]	[dBuV/m]	[dBuV/m]	[dBuV/m]	[dB] [dB]	[dB] [dB]						
	1127					HO	-8.5					74.0	54.0	>27.0	>10.0			
	1288					HO	-7.4					74.0	54.0					
	1449					HO	-6.3					74.0	54.0					
	1610					HO	-5.0					74.0	54.0					

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.1 Open Test Site

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : PV-D744S-A
POWER : AC120V/60Hz
DESCRIPTION : TV Reception+Rec.

REPORT No. : 24LE0253-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : July 26, 2004
TEMP./HUMID. : 23°C/37%
ENGINEER : Seigo Kakehi

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READINNG(QP) HOR. VER. [dBuV]				ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]				LIMIT [QP] [dBuV/m]			MARGIN(QP) HOR. VER. [dB] [dB]				
CATV																			
14	167	22.5	22.8			BC	-5.5	17.0	17.3			43.5		26.5	26.2				
	334					LO	-4.6					46.0		>15.0					
	501				LO	-0.5					46.0								
	668				LO	3.6					46.0								
	835				LO	6.1					46.0								
		READINNG(PK) HOR. VER. [dBuV]	READINNG(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]								
	1002				HO	-9.3					74.0	54.0	>27.0		>10.0				
	1169			HO	-8.2					74.0	54.0								
	1336			HO	-7.1					74.0	54.0								
	1503			HO	-6.0					74.0	54.0								
	1670			HO	-4.5					74.0	54.0								
CH.	FREQ [MHz]	READINNG(QP) HOR. VER. [dBuV]				ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]				LIMIT [QP] [dBuV/m]			MARGIN(QP) HOR. VER. [dB] [dB]				
18	191	22.8	22.6			BC	-3.9	18.9	18.7			43.5		24.6	24.8				
	382					LO	-2.8					46.0		>15.0					
	573				LO	1.2					46.0								
	764				LO	4.8					46.0								
	955				LO	9.6					46.0								
		READINNG(PK) HOR. VER. [dBuV]	READINNG(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]								
	1146				HO	-8.4					74.0	54.0	>27.0		>10.0				
	1337			HO	-7.1					74.0	54.0								
	1528			HO	-5.7					74.0	54.0								
	CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]				ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]				LIMIT [QP] [dBuV/m]			MARGIN(QP) HOR. VER. [dB]			
	22	215	25.1	22.4			BC	-3.3	21.8	19.1			43.5		21.7	24.4			
430						LO	-1.7					46.0		>15.0					
645					LO	3.0					46.0								
860					LO	6.8					46.0								
				READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]			RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]			MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]		
1075					HO	-8.7					74.0	54.0	>27.0		>10.0				
1290				HO	-7.4					74.0	54.0								
1505				HO	-6.0					74.0	54.0								
CH.		FREQ [MHz]	READING(QP) HOR. VER. [dBuV]				ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]				LIMIT [QP] [dBuV/m]			MARGIN(QP) HOR. VER. [dB]			
23		263	22.4	22.3			BC	-1.9	20.5	20.4			46.0	46.0	25.5	25.6			
		526					LO	0.2					46.0	46.0					
	789				LO	4.9					46.0	46.0							
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]								
	1052				HO	-9.0					74.0	54.0	>27.0		>10.0				
	1315			HO	-7.3					74.0	54.0								
	1578			HO	-5.3					74.0	54.0								
	CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]				ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]				LIMIT [QP] [dBuV/m]			MARGIN(QP) HOR. VER. [dB]			
	29	299	21.9	22.1			BC	0.5	22.4	22.6			46.0	46.0	23.6	23.4			
		598					LO	1.9					46.0	46.0	>15.0				
		897				LO	7.8					46.0	46.0						
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB] [dB]	MARGIN(AV) HOR. VER. [dB] [dB]								
1196					HO	-8.1					74.0	54.0	>27.0		>10.0				
1495				HO	-6.0					74.0	54.0								

DATA OF RADIATION TEST

UL Apex Co., Ltd.
Yokowa EMC No.1 Open Test Site

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL No. : PV-D744S-A
POWER : AC120V/60Hz
DESCRIPTION : TV Reception+Rec.

REPORT No. : 24LE0253-YW-1
REGULATION : FCC PART15 B
TEST DISTANCE : 3m
ATTENUATION : 101-847MHz 6dB
1030-1694MHz 0dB
DATE : July 26, 2004
TEMP/HUMID. : 23°C/37%
ENGINEER : Seigo Kakehi

*C.Factor[dB]=ANT Factor + Cable Loss - Amp Gain

For the measurement above 1GHz, measurement of AV detector is performed only when the result of PK detector exceed the limit of AV.

CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
CATV														
36	341	22.9	23.4		LO	-4.4	18.5	19.0		46.0	46.0	27.5	27.0	
	682				LO	3.9				46.0	46.0	>15.0		
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1023				HO	-9.2				74.0	54.0	>27.0	>10.0	
	1364				HO	-7.0				74.0	54.0			
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
37	347	22.5	22.2		LO	-4.2	18.3	18.0		46.0	46.0	27.7	28.0	
	694				LO	4.2				46.0	46.0	>15.0		
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1041				HO	-9.1				74.0	54.0	>27.0	>10.0	
	1388				HO	-6.7				74.0	54.0			
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
65	515	22.3	22.4		LO	-0.2	22.1	22.2		46.0	46.0	23.9	23.8	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1030				HO	-9.2				74.0	54.0	>27.0	>10.0	
	1545				HO	-5.6				74.0	54.0			
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
94	689	21.8	21.8		LO	4.1	25.9	25.9		46.0	46.0	20.1	20.1	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1378				HO	-6.8				74.0	54.0	>27.0		>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
100	695	21.2	21.3		LO	4.2	25.4	25.5		46.0	46.0	20.6	20.5	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1390				HO	-6.7				74.0	54.0	>27.0		>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
113	773	20.2	20.1		LO	4.9	25.1	25.0		46.0	46.0	20.9	21.0	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1546				HO	-5.6				74.0	54.0	>27.0		>10.0
CH.	FREQ [MHz]	READING(QP) HOR. VER. [dBuV]			ANT TYPE	C.Factor [dBuV]	RESULT(QP) HOR. VER. [dBuV/m]			LIMIT [QP] [dBuV/m]		MARGIN(QP) HOR. VER. [dB]		
125	845	22.1	22.3		LO	6.4	28.5	28.7		46.0	46.0	17.5	17.3	
		READING(PK) HOR. VER. [dBuV]	READING(AV) HOR. VER. [dBuV]	ANT TYPE	C.Factor [dBuV]	RESULT(PK) HOR. VER. [dBuV/m]	RESULT(AV) HOR. VER. [dBuV/m]	LIMIT [PK] [dBuV/m]	LIMIT [AV] [dBuV/m]	MARGIN(PK) HOR. VER. [dB]	MARGIN(AV) HOR. VER. [dB]			
	1690				HO	-4.3				74.0	54.0	>27.0		>10.0

DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec.
Remarks : 25dBmV
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	69.99	BB	34.4	33.0	6.4	29.9	1.9	5.8	18.6	17.2	40.0	21.4	22.8
2.	120.00	BB	42.8	31.0	13.2	29.9	2.6	5.8	34.5	22.7	43.5	9.0	20.8
3.	134.99	BB	41.0	35.8	14.1	29.9	2.8	5.8	33.8	28.6	43.5	9.7	14.9
4.	192.00	BB	25.1	24.5	16.7	29.9	3.5	5.8	21.2	20.6	43.5	22.3	22.9
5.	200.45	BB	33.1	28.6	17.1	30.0	3.6	5.8	29.6	25.1	43.5	13.9	18.4
6.	202.50	BB	40.8	31.9	17.1	30.0	3.6	5.8	37.3	28.4	43.5	6.2	15.1
7.	215.99	BB	40.5	36.2	17.1	30.0	3.8	5.8	37.2	32.9	43.5	6.3	10.6
8.	219.99	BB	33.1	30.2	17.1	30.0	3.8	5.8	29.8	26.9	46.0	16.2	19.1
9.	270.02	BB	31.1	29.2	18.3	30.0	4.5	5.8	29.7	27.8	46.0	16.3	18.2
10.	324.00	BB	33.7	31.3	14.2	30.0	5.0	5.8	28.7	26.3	46.0	17.3	19.7

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Expect for the above table : adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

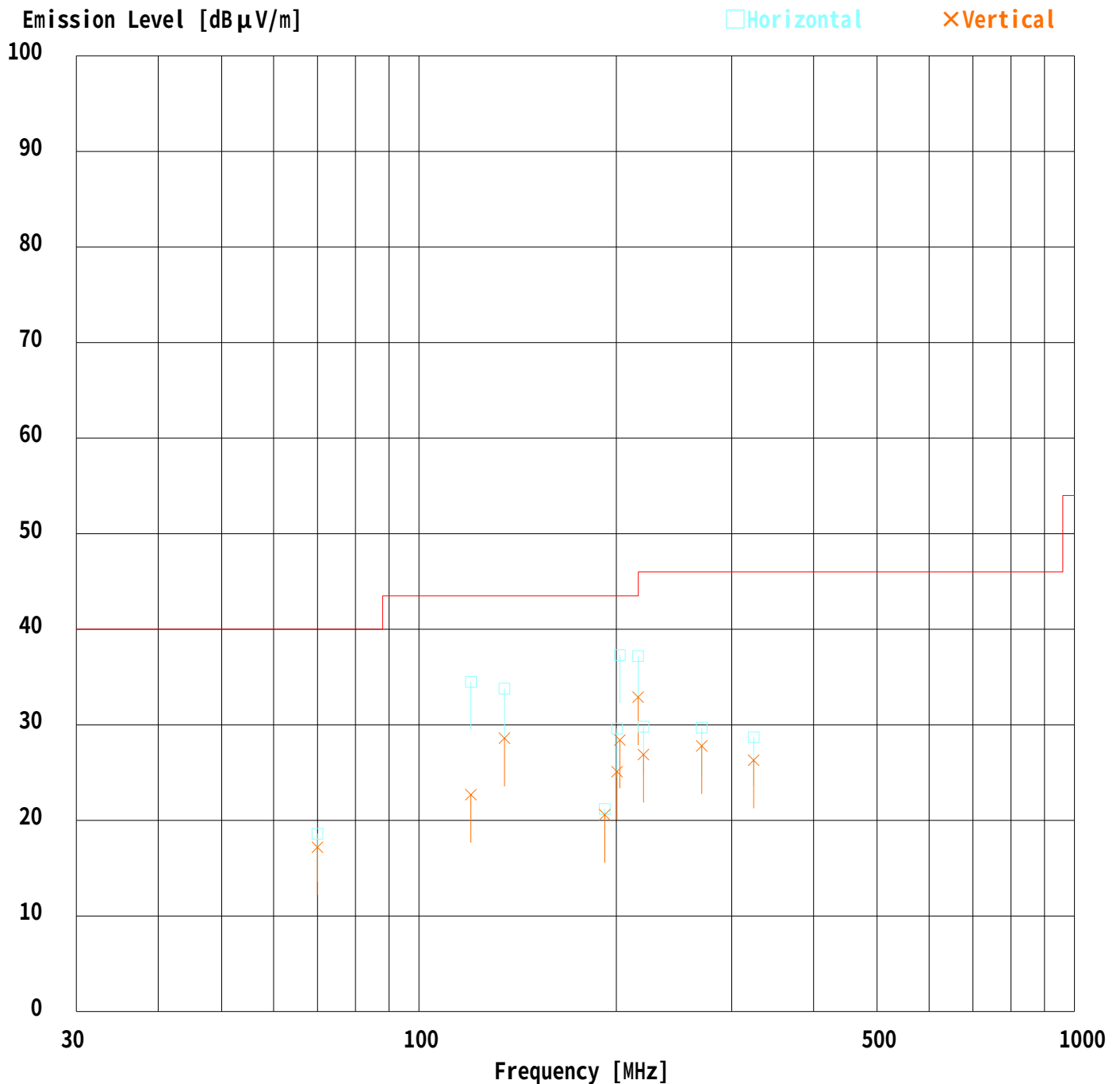
UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec.
Remarks : 25dBmV
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec.
Remarks : 0dBmV
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	202.50	BB	40.2	31.9	17.1	30.0	3.6	5.8	36.7	28.4	43.5	6.8	15.1
2.	215.99	BB	40.5	35.6	17.1	30.0	3.8	5.8	37.2	32.3	43.5	6.3	11.2

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Expect for the above table : adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

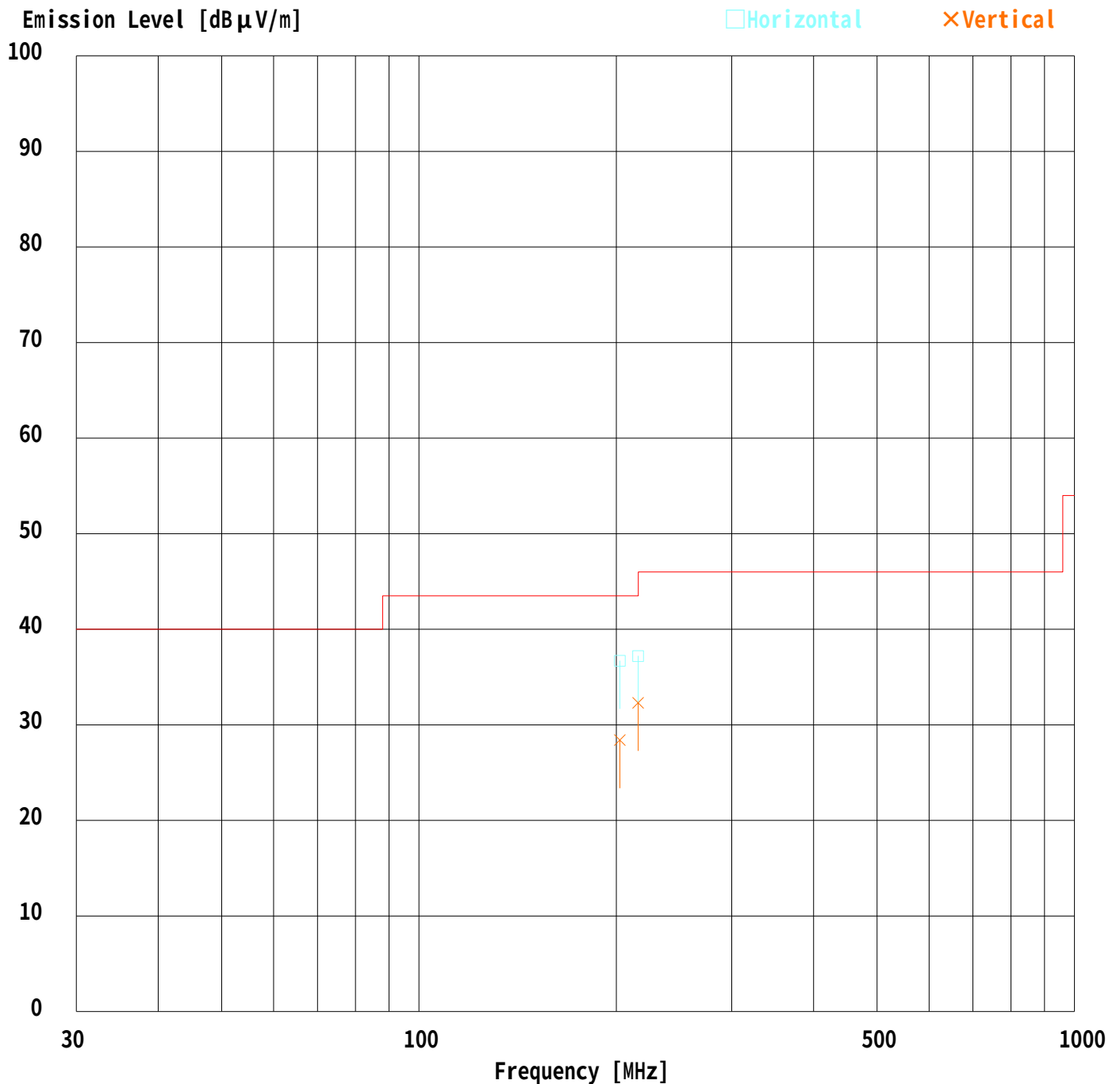
UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : TV Reception+Rec.
Remarks : 0dBmV
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 1+Rec
Remarks : 5Vp-p
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	70.01	BB	38.3	37.5	6.4	29.9	1.9	5.8	22.5	21.7	40.0	17.5	18.3
2.	120.00	BB	36.2	39.2	13.2	29.9	2.6	5.8	27.9	30.9	43.5	15.6	12.6
3.	134.99	BB	35.2	40.0	14.1	29.9	2.8	5.8	28.0	32.8	43.5	15.5	10.7
4.	192.00	BB	25.4	27.1	16.7	29.9	3.5	5.8	21.5	23.2	43.5	22.0	20.3
5.	200.46	BB	33.0	28.5	17.1	30.0	3.6	5.8	29.5	25.0	43.5	14.0	18.5
6.	202.50	BB	39.3	34.0	17.1	30.0	3.6	5.8	35.8	30.5	43.5	7.7	13.0
7.	215.99	BB	40.2	36.7	17.1	30.0	3.8	5.8	36.9	33.4	43.5	6.6	10.1
8.	219.99	BB	31.8	30.8	17.1	30.0	3.8	5.8	28.5	27.5	46.0	17.5	18.5
9.	270.02	BB	30.1	29.1	18.3	30.0	4.5	5.8	28.7	27.7	46.0	17.3	18.3
10.	324.00	BB	34.5	37.4	14.2	30.0	5.0	5.8	29.5	32.4	46.0	16.5	13.6

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Expect for the above table : adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

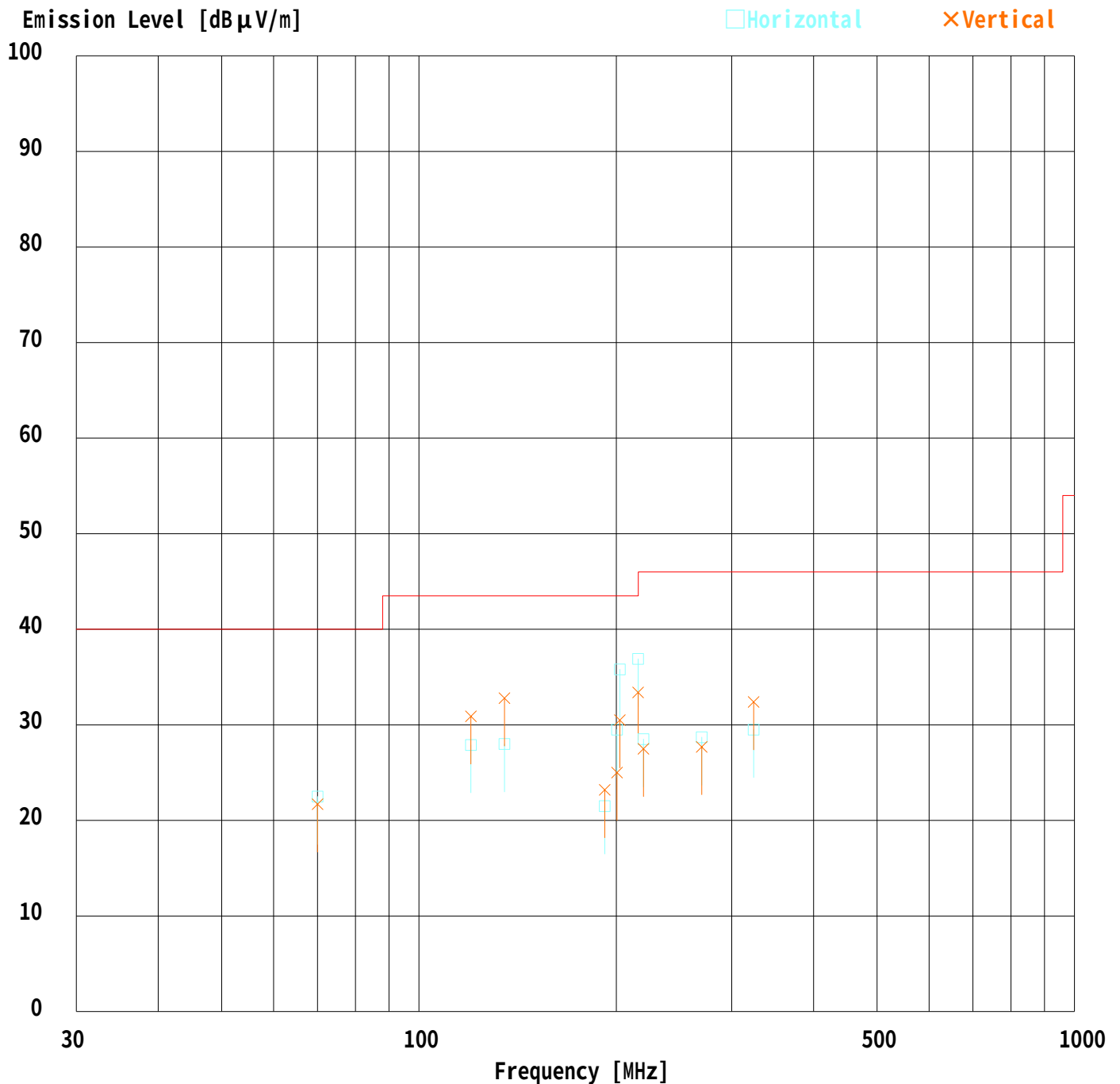
UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 1+Rec
Remarks : 5Vp-p
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 1+Rec
Remarks : 1Vp-p
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	202.50	BB	39.0	33.5	17.1	30.0	3.6	5.8	35.5	30.0	43.5	8.0	13.5
2.	215.99	BB	40.2	36.1	17.1	30.0	3.8	5.8	36.9	32.8	43.5	6.6	10.7

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Expect for the above table : adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

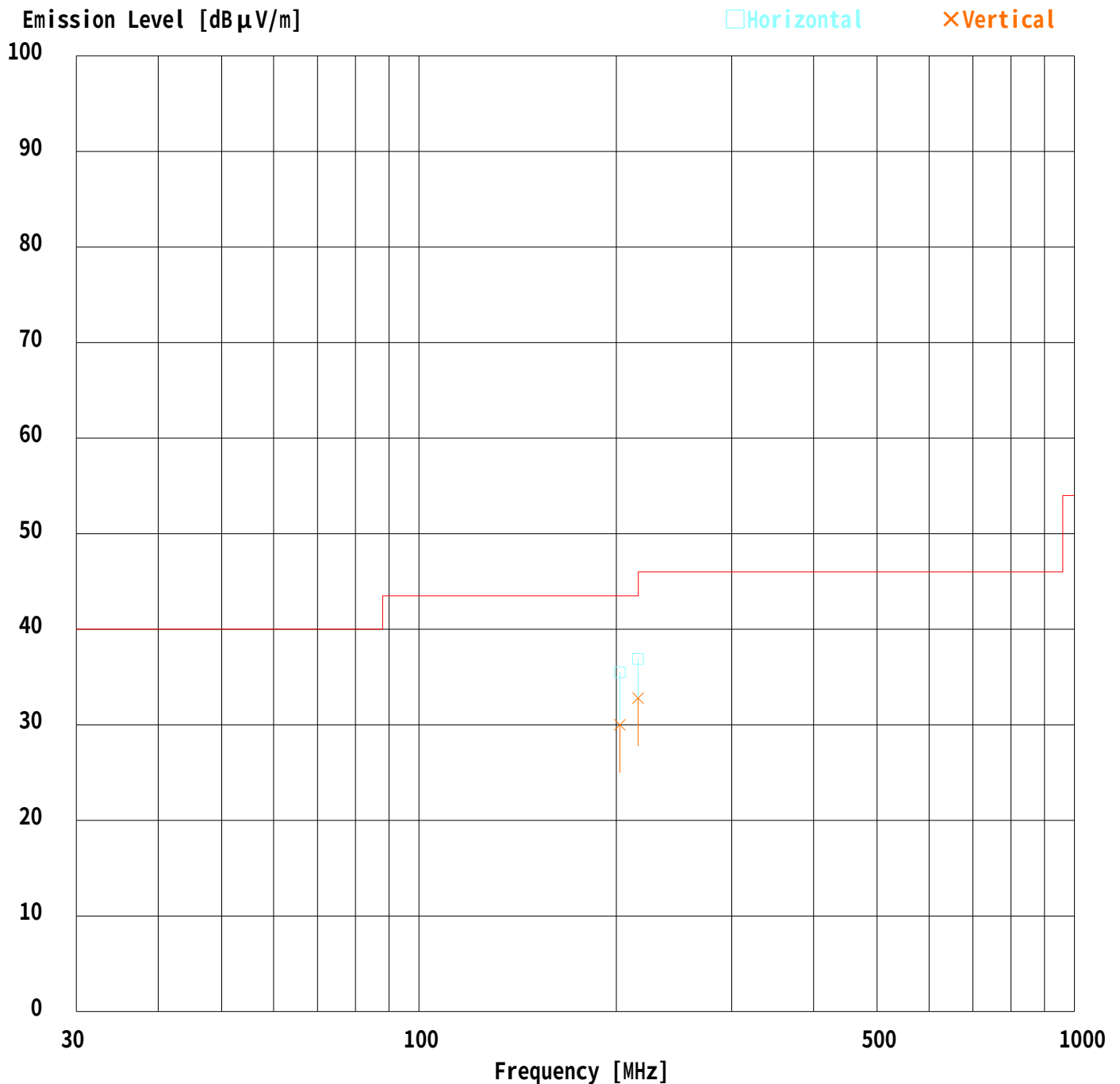
UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 1+Rec
Remarks : 1Vp-p
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 2+Rec
Remarks : 5Vp-p
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	70.01	BB	36.3	37.2	6.4	29.9	1.9	5.8	20.5	21.4	40.0	19.5	18.6
2.	120.00	BB	28.0	30.7	13.2	29.9	2.6	5.8	19.7	22.4	43.5	23.8	21.1
3.	134.99	BB	36.7	35.2	14.1	29.9	2.8	5.8	29.5	28.0	43.5	14.0	15.5
4.	192.00	BB	23.2	23.6	16.7	29.9	3.5	5.8	19.3	19.7	43.5	24.2	23.8
5.	200.46	BB	32.8	28.8	17.1	30.0	3.6	5.8	29.3	25.3	43.5	14.2	18.2
6.	202.50	BB	39.2	35.7	17.1	30.0	3.6	5.8	35.7	32.2	43.5	7.8	11.3
7.	215.99	BB	38.2	36.2	17.1	30.0	3.8	5.8	34.9	32.9	43.5	8.6	10.6
8.	219.99	BB	31.8	29.9	17.1	30.0	3.8	5.8	28.5	26.6	46.0	17.5	19.4
9.	270.02	BB	30.3	30.0	18.3	30.0	4.5	5.8	28.9	28.6	46.0	17.1	17.4
10.	324.00	BB	34.4	38.2	14.2	30.0	5.0	5.8	29.4	33.2	46.0	16.6	12.8

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Expect for the above table : adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

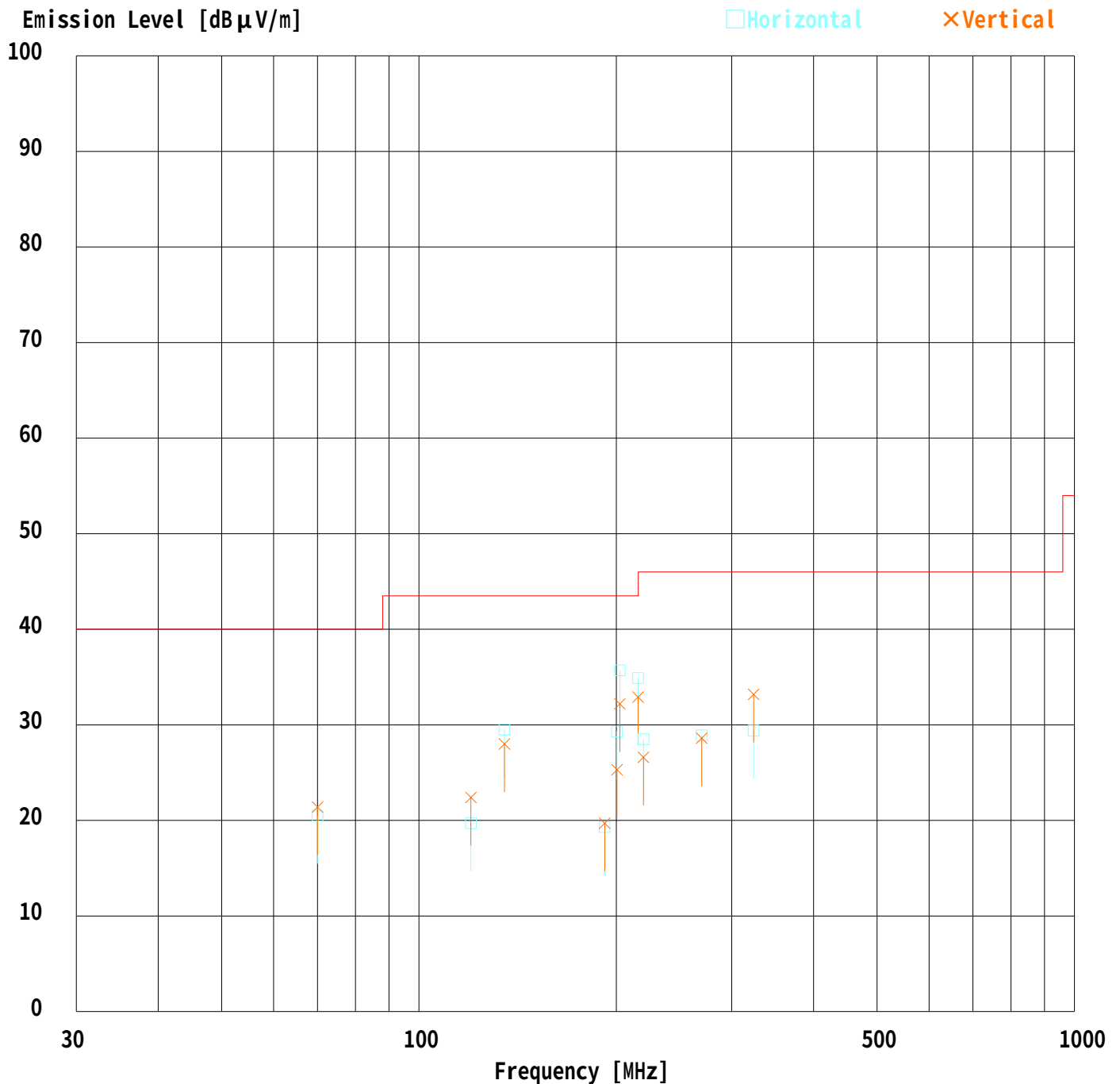
UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 2+Rec
Remarks : 5Vp-p
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 2+Rec
Remarks : 1Vp-p
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	202.50	BB	39.9	33.7	17.1	30.0	3.6	5.8	36.4	30.2	43.5	7.1	13.3
2.	215.99	BB	37.7	35.9	17.1	30.0	3.8	5.8	34.4	32.6	43.5	9.1	10.9

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Expect for the above table : adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

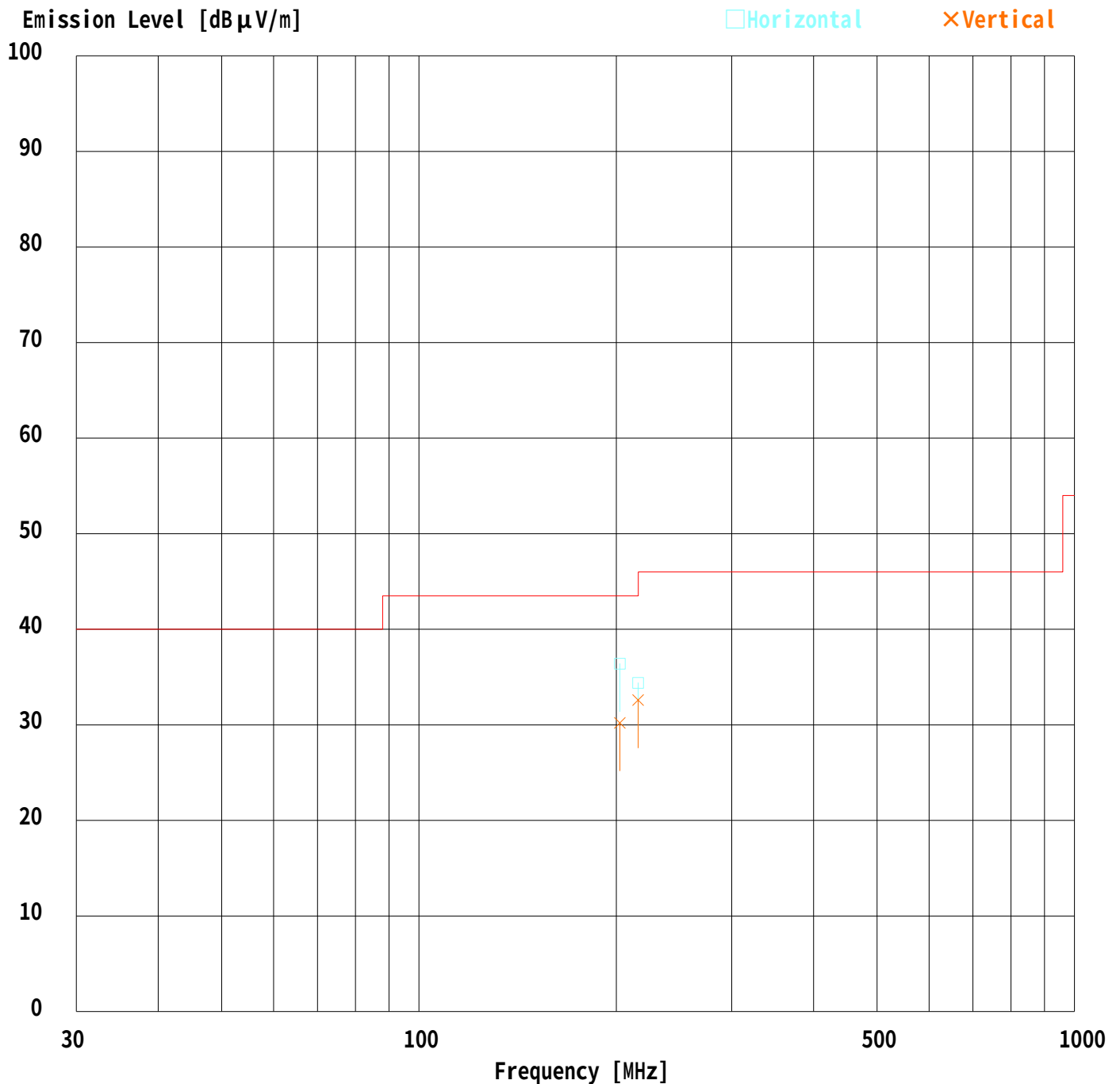
UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : AV Input 2+Rec
Remarks : 1Vp-p
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Play
Remarks :
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	70.01	BB	36.1	28.6	6.4	29.9	1.9	5.8	20.3	12.8	40.0	19.7	27.2
2.	120.00	BB	30.3	29.6	13.2	29.9	2.6	5.8	22.0	21.3	43.5	21.5	22.2
3.	134.99	BB	38.7	35.9	14.1	29.9	2.8	5.8	31.5	28.7	43.5	12.0	14.8
4.	192.00	BB	23.3	23.2	16.7	29.9	3.5	5.8	19.4	19.3	43.5	24.1	24.2
5.	200.46	BB	35.7	30.5	17.1	30.0	3.6	5.8	32.2	27.0	43.5	11.3	16.5
6.	202.50	BB	40.2	33.5	17.1	30.0	3.6	5.8	36.7	30.0	43.5	6.8	13.5
7.	215.99	BB	39.0	33.3	17.1	30.0	3.8	5.8	35.7	30.0	43.5	7.8	13.5
8.	219.99	BB	30.3	26.6	17.1	30.0	3.8	5.8	27.0	23.3	46.0	19.0	22.7
9.	270.02	BB	29.6	28.5	18.3	30.0	4.5	5.8	28.2	27.1	46.0	17.8	18.9
10.	324.00	BB	32.9	30.5	14.2	30.0	5.0	5.8	27.9	25.5	46.0	18.1	20.5

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Expect for the above table : adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

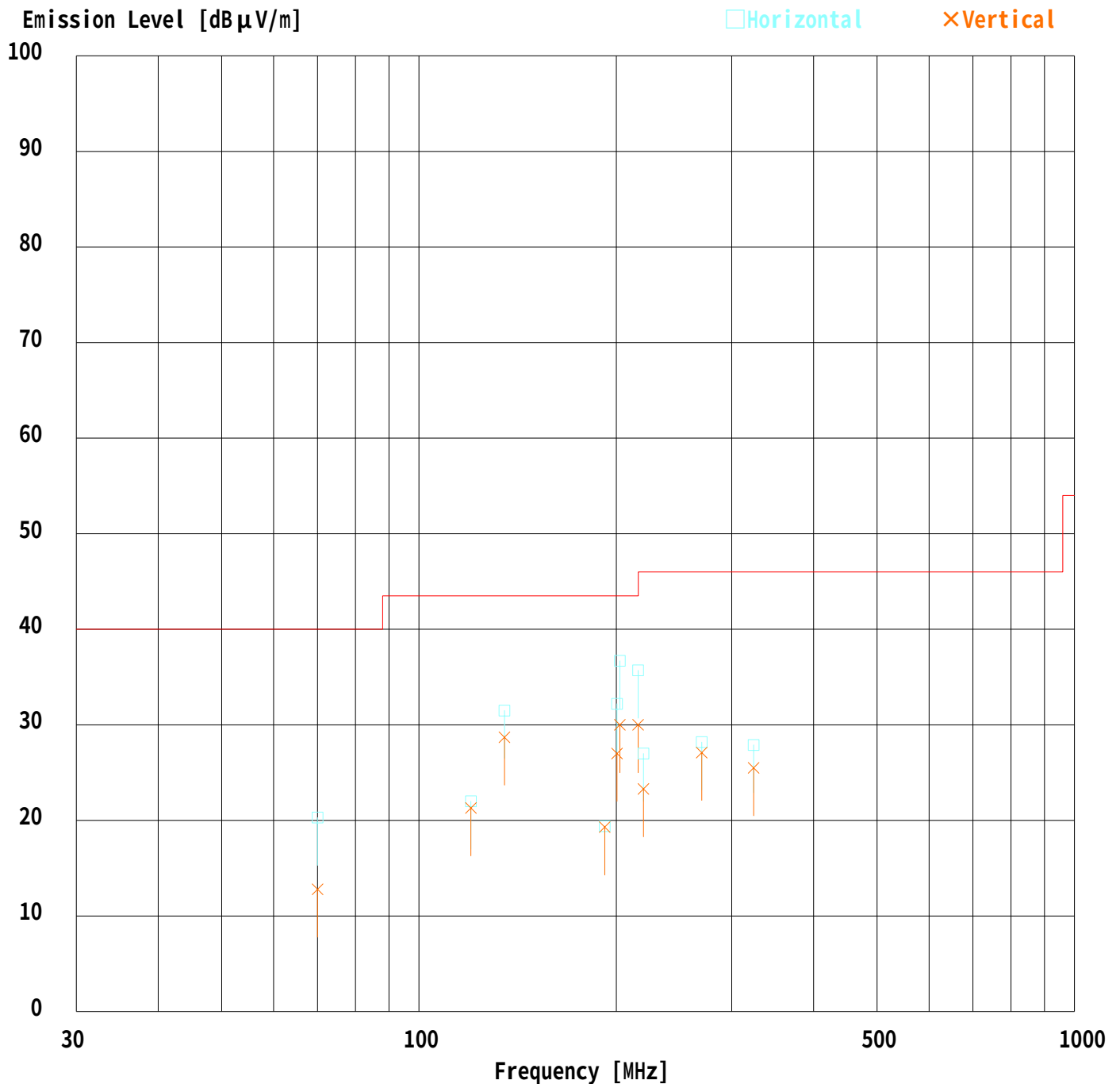
UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : VCR Play
Remarks :
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	72.01	BB	38.3	41.5	6.3	29.9	2.0	5.8	22.5	25.7	40.0	17.5	14.3
2.	120.01	BB	35.0	35.2	13.2	29.9	2.6	5.8	26.7	26.9	43.5	16.8	16.6
3.	135.01	BB	36.9	36.5	14.1	29.9	2.8	5.8	29.7	29.3	43.5	13.8	14.2
4.	192.00	BB	29.6	27.2	16.7	29.9	3.5	5.8	25.7	23.3	43.5	17.8	20.2
5.	200.45	BB	35.6	31.0	17.1	30.0	3.6	5.8	32.1	27.5	43.5	11.4	16.0
6.	202.50	BB	37.9	31.7	17.1	30.0	3.6	5.8	34.4	28.2	43.5	9.1	15.3
7.	215.99	BB	37.0	30.9	17.1	30.0	3.8	5.8	33.7	27.6	43.5	9.8	15.9
8.	219.99	BB	30.8	26.7	17.1	30.0	3.8	5.8	27.5	23.4	46.0	18.5	22.6
9.	270.02	BB	36.2	29.5	18.3	30.0	4.5	5.8	34.8	28.1	46.0	11.2	17.9
10.	324.00	BB	31.9	34.9	14.2	30.0	5.0	5.8	26.9	29.9	46.0	19.1	16.1

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Expect for the above table : adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

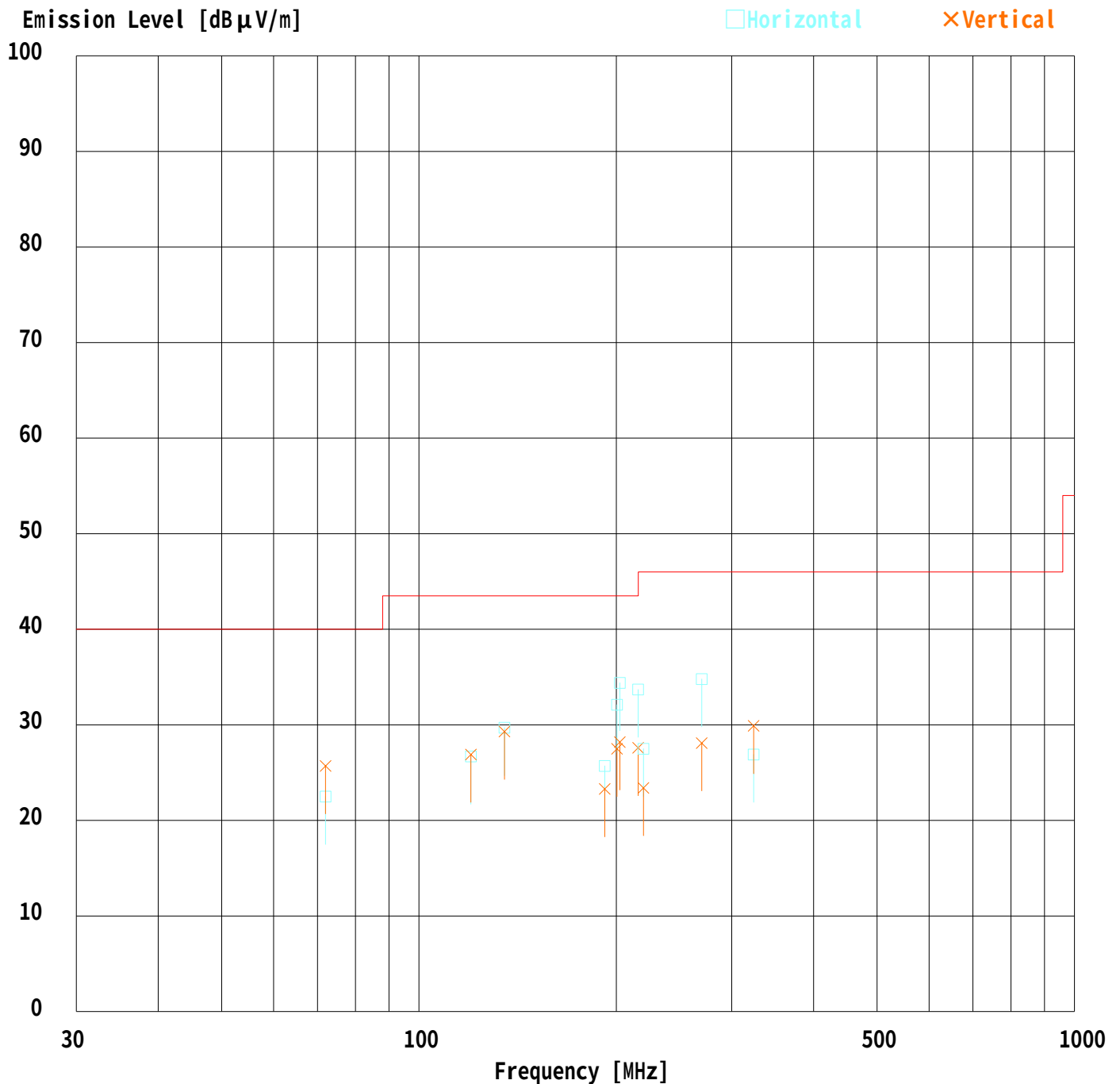
UL Apex Co., Ltd.

YOKOWA No.1 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 7/26/2004
Test Distance : 3 m
Temperature : 23 °C
Humidity : 37 %
Regulation : FCC Part15B CLASS B

Engineer : Seigo Kakehi



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.2 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 7/27/2004
Test Distance : 3 m
Temperature : 24 °C
Humidity : 67 %
Regulation : FCC Part15B CLASS B(Peak Limit / Upper1GHz)

Engineer : Tsubasa Takayama

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	1020.96	BB	48.1	52.5	25.0	35.4	2.6	0.0	40.3	44.7	74.0	33.7	29.3
2.	1079.72	BB	47.7	51.8	25.3	35.3	2.7	0.0	40.4	44.5	74.0	33.6	29.5
3.	1147.36	BB	46.9	49.4	25.6	35.3	2.8	0.0	40.0	42.5	74.0	34.0	31.5
4.	1289.90	BB	46.1	49.2	26.3	35.1	3.0	0.0	40.3	43.4	74.0	33.7	30.6

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Except for the above table: adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.2 OPEN TEST SITE

Report No.: 24LE0253-YW-1

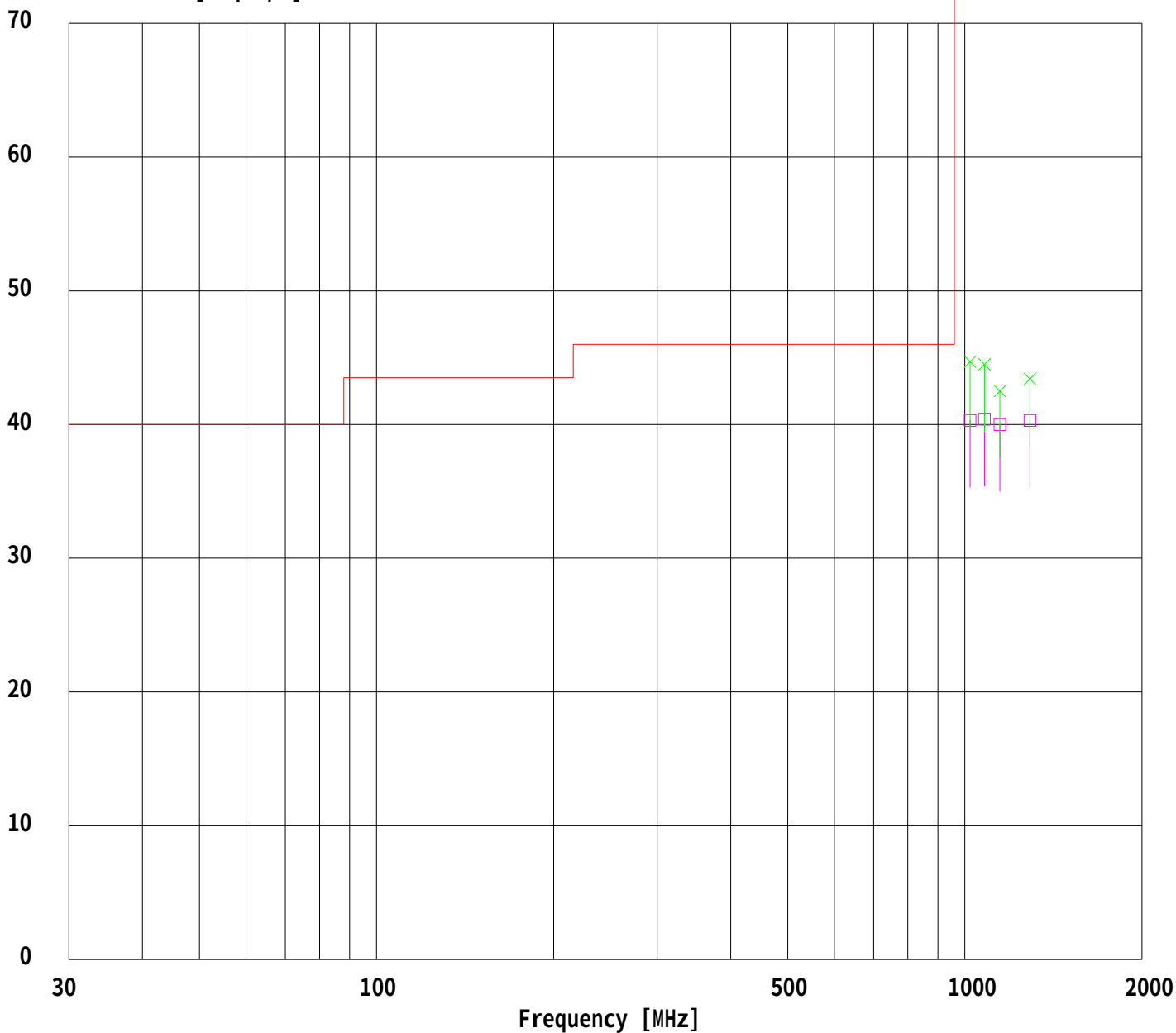
Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 7/27/2004
Test Distance : 3 m
Temperature : 24 °C
Humidity : 67 %
Regulation : FCC Part15B CLASS B(Peak Limit / Upper1GHz)

Engineer : Tsubasa Takayama

Emission Level [dBμV/m]

□ Horizontal

× Vertical



DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.2 OPEN TEST SITE

Report No.: 24LE0253-YW-1

Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 7/27/2004
Test Distance : 3 m
Temperature : 24 °C Engineer : Tsubasa Takayama
Humidity : 67 %
Regulation : FCC Part15B CLASS B(Average Limit / Upper1GHz)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	1020.96	BB	35.5	38.7	25.0	35.4	2.6	0.0	27.7	30.9	54.0	26.3	23.1
2.	1079.72	BB	38.8	44.0	25.3	35.3	2.7	0.0	31.5	36.7	54.0	22.5	17.3
3.	1147.36	BB	33.7	34.3	25.6	35.3	2.8	0.0	26.8	27.4	54.0	27.2	26.6
4.	1289.90	BB	32.9	34.4	26.3	35.1	3.0	0.0	27.1	28.6	54.0	26.9	25.4

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

Except for the above table: adequate margin data below the limits.

ANT.TYPE : 30-300MHz Biconical, 300-1000MHz Logperiodic

DATA OF RADIATION TEST

UL Apex Co., Ltd.

YOKOWA No.2 OPEN TEST SITE

Report No.: 24LE0253-YW-1

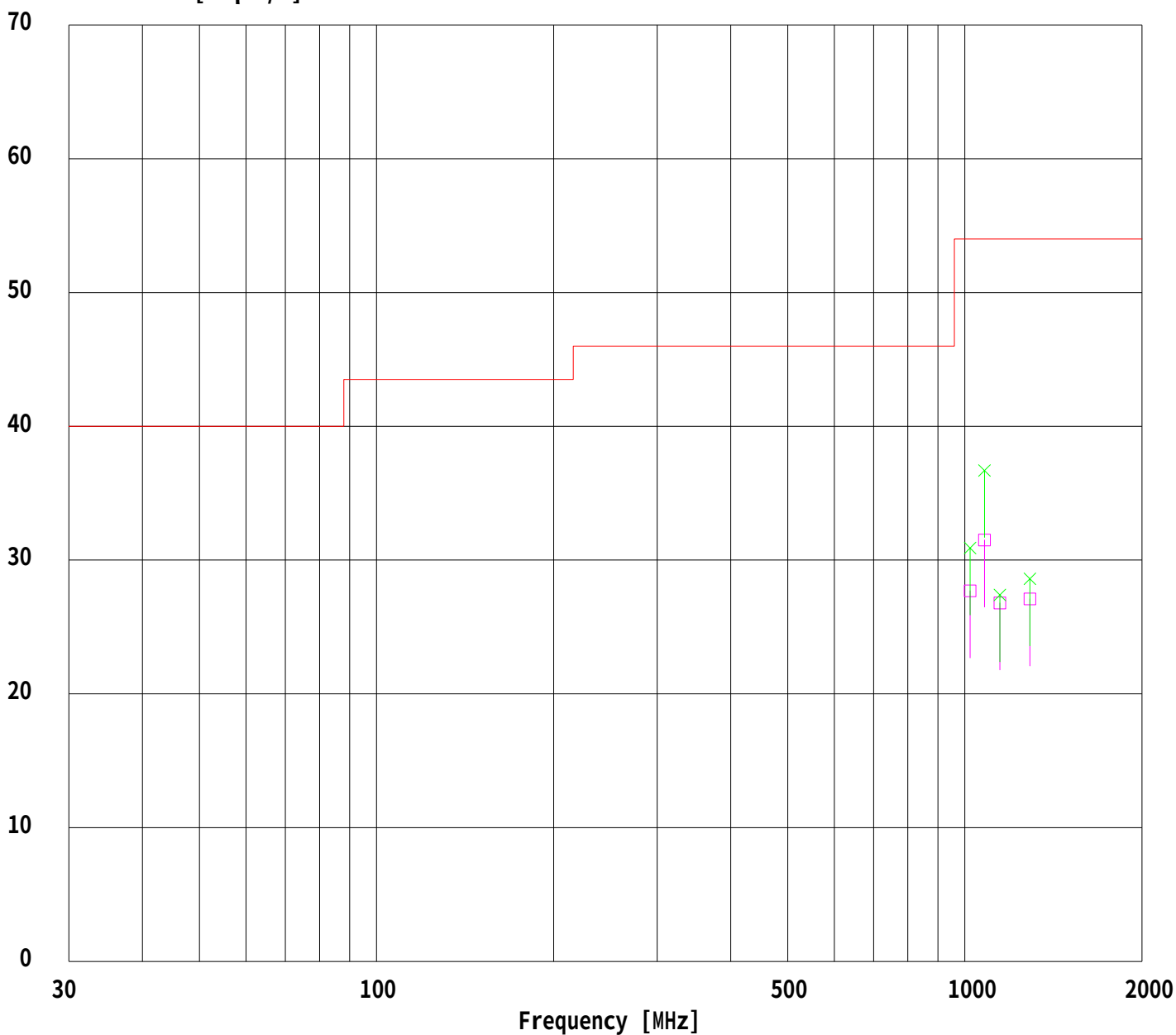
Applicant : Orion Electric Co., Ltd.
Kind of Equipment : DVD/VCR
Model No. : PV-D744S-A
Serial No. : -
Power : AC120V/60Hz
Mode : DVD Play
Remarks :
Date : 7/27/2004
Test Distance : 3 m
Temperature : 24 °C
Humidity : 67 %
Regulation : FCC Part15B CLASS B(Average Limit / Upper1GHz)

Engineer : Tsubasa Takayama

Emission Level [dB μ V/m]

□ Horizontal

× Vertical



DATA OF ANTENNA TERMINAL TEST

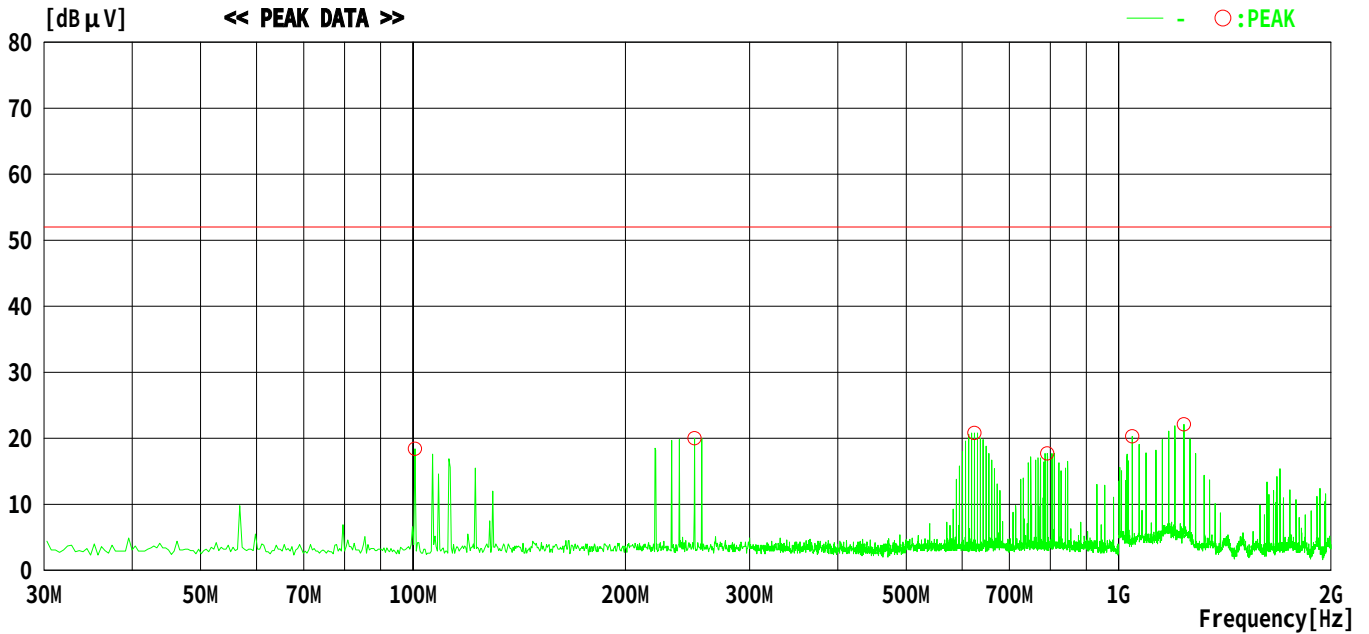
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : PV-D744S-A
OPERATION MODE : TV Tuning mode

REPORT NO : 24LE0253-YW-1
DATE : July 26, 2004
REGULATION : FCC 15B
TEST ENGINEER : Tsubasa Takayama

TEMP./HUMID. : 26°C/68%

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING PEAK [dB μV]	C.F [dB]	RESULT [dB μV]	LIMIT Peak [dB μV]	MARGIN Peak [dB]	PHASE
1	100.66400	38.0	-19.6	18.4	52.0	33.6	-
2	250.69350	39.0	-19.0	20.0	52.0	32.0	-
3	624.85330	41.0	-20.2	20.8	52.0	31.2	-
4	792.57520	37.5	-19.8	17.7	52.0	34.3	-
5	1045.71300	48.2	-27.9	20.3	52.0	31.7	-
6	1237.84200	50.0	-27.9	22.1	52.0	29.9	-

CALCULATION: READING + MATCHING PAD LOSS + CABLE LOSS - AMP. GAIN

DATA OF ANTENNA TERMINAL TEST

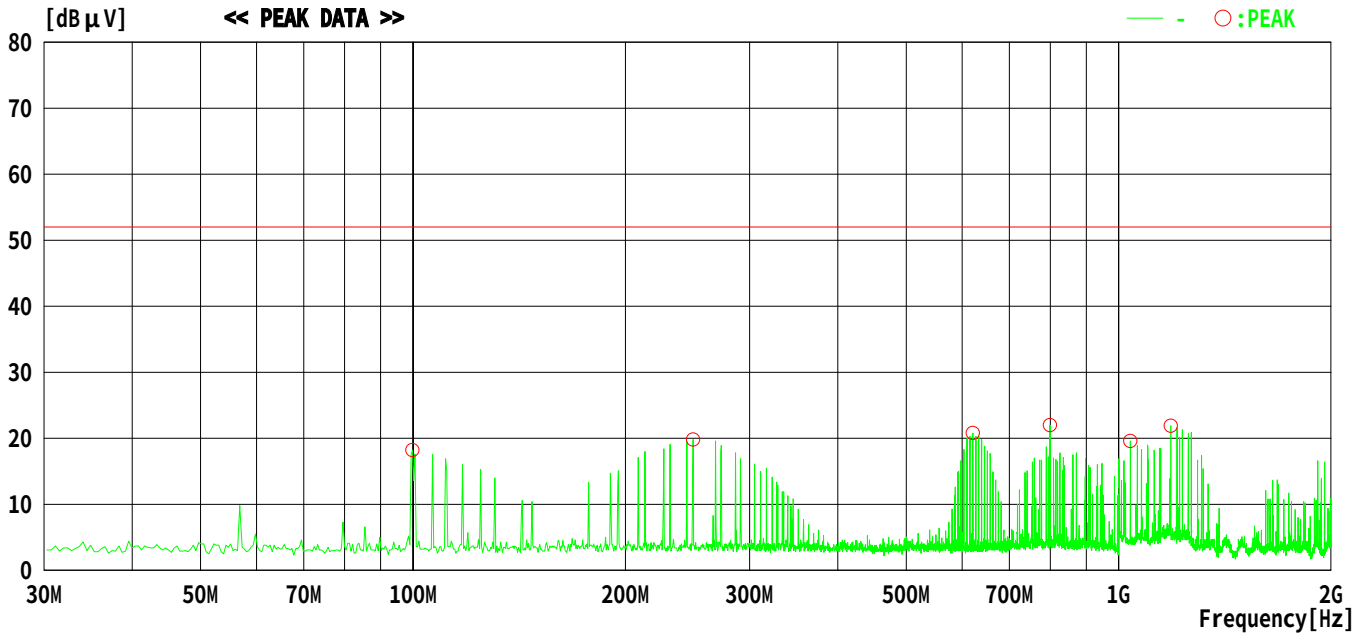
UL Apex Co.,Ltd.

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL : PV-D744S-A
OPERATION MODE : CATV Tuning mode

REPORT NO : 24LE0253-YW-1
DATE : July 26, 2004
REGULATION : FCC 15B
TEST ENGINEER : Tsubasa Takayama

TEMP./HUMID. : 26°C/68%

LIMIT : FCC 15B ANTENNA TERMINAL



NO	FREQ [MHz]	READING PEAK [dB μV]	C.F [dB]	RESULT [dB μV]	LIMIT Peak [dB μV]	MARGIN Peak [dB]	PHASE
1	99.82113	37.8	-19.6	18.2	52.0	33.8	-
2	249.42920	38.8	-19.0	19.8	52.0	32.2	-
3	621.71060	41.0	-20.2	20.8	52.0	31.2	-
4	799.43260	41.8	-19.8	22.0	52.0	30.0	-
5	1039.28500	47.5	-27.9	19.6	52.0	32.4	-
6	1185.70300	49.8	-27.9	21.9	52.0	30.1	-

CALCULATION: READING + MATCHING PAD LOSS + CABLE LOSS - AMP. GAIN

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 24LE0253-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: PV-D744S-A	Date	: July 28, 2004
Power	: AC 120 V / 60 Hz	Temp./Humid	: 24°C/66%
Description	: TV Reception + Rec(25dBmV)	Engineer	: Seigo Kakehi

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	83.9	20.9	63.0	69.5	6.5
4	67.25	84.0	21.0	63.0	69.5	6.5

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.5	20.9	48.6	56.5	7.9
	65.75	68.4	21.1	47.3	56.5	9.2
4	62.75	68.7	21.0	47.7	56.5	8.8
	71.75	67.5	20.9	46.6	56.5	9.9

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 24LE0253-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: PV-D744S-A	Date	: July 28, 2004
Power	: AC 120 V / 60 Hz	Temp./Humid	: 24°C/66%
Description	: TV Reception + Rec(0dBmV)	Engineer	: Seigo Kakehi

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	83.0	20.9	62.1	69.5	7.4
4	67.25	83.8	21.0	62.8	69.5	6.7

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.3	20.9	48.4	56.5	8.1
	65.75	68.3	21.1	47.2	56.5	9.3
4	62.75	68.7	21.0	47.7	56.5	8.8
	71.75	67.5	20.9	46.6	56.5	9.9

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 24LE0253-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: PV-D744S-A	Date	: July 28, 2004
Power	: AC 120 V / 60 Hz	Temp./Humid	: 24°C/66%
Description	: AV Input 1 + Rec(5Vp-p)	Engineer	: Seigo Kakehi

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.2	20.9	63.3	69.5	6.2
4	67.25	83.7	21.0	62.7	69.5	6.8

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.2	20.9	48.3	56.5	8.2
	65.75	68.1	21.1	47.0	56.5	9.5
4	62.75	68.7	21.0	47.7	56.5	8.8
	71.75	67.6	20.9	46.7	56.5	9.8

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 24LE0253-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: PV-D744S-A	Date	: July 28, 2004
Power	: AC 120 V / 60 Hz	Temp./Humid	: 24°C/66%
Description	: AV Input 1 + Rec(1Vp-p)	Engineer	: Seigo Kakehi

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.0	20.9	63.1	69.5	6.4
4	67.25	83.9	21.0	62.9	69.5	6.6

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.2	20.9	48.3	56.5	8.2
	65.75	68.1	21.1	47.0	56.5	9.5
4	62.75	68.7	21.0	47.7	56.5	8.8
	71.75	67.6	20.9	46.7	56.5	9.8

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 24LE0253-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: PV-D744S-A	Date	: July 28, 2004
Power	: AC 120 V / 60 Hz	Temp./Humid	: 24°C/66%
Description	: AV Input 2 + Rec(5Vp-p)	Engineer	: Seigo Kakehi

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.2	20.9	63.3	69.5	6.2
4	67.25	83.9	21.0	62.9	69.5	6.6

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.2	20.9	48.3	56.5	8.2
	65.75	68.3	21.1	47.2	56.5	9.3
4	62.75	68.7	21.0	47.7	56.5	8.8
	71.75	67.5	20.9	46.6	56.5	9.9

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 24LE0253-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: PV-D744S-A	Date	: July 28, 2004
Power	: AC 120 V / 60 Hz	Temp./Humid	: 24°C/66%
Description	: AV Input 2 + Rec(1Vp-p)	Engineer	: Seigo Kakehi

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.2	20.9	63.3	69.5	6.2
4	67.25	83.8	21.0	62.8	69.5	6.7

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.2	20.9	48.3	56.5	8.2
	65.75	68.0	21.1	46.9	56.5	9.6
4	62.75	68.7	21.0	47.7	56.5	8.8
	71.75	67.5	20.9	46.6	56.5	9.9

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 24LE0253-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: PV-D744S-A	Date	: July 28, 2004
Power	: AC 120 V / 60 Hz	Temp./Humid	: 24°C/66%
Description	: VCR Play	Engineer	: Seigo Kakehi

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	83.8	20.9	62.9	69.5	6.6
4	67.25	83.9	21.0	62.9	69.5	6.6

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.3	20.9	48.4	56.5	8.1
	65.75	68.2	21.1	47.1	56.5	9.4
4	62.75	68.7	21.0	47.7	56.5	8.8
	71.75	67.5	20.9	46.6	56.5	9.9

RF output level

UL Apex Co., LTD.
YOKOWA EMC LAB.

Company	: Orion Electric Co.,Ltd.	Report Number	: 24LE0253-YW-1
Equipment	: DVD/VCR	Regulation	: FCC Part15B Subpart B
Model number	: PV-D744S-A	Date	: July 28, 2004
Power	: AC 120 V / 60 Hz	Temp./Humid	: 24°C/66%
Description	: DVD Play	Engineer	: Seigo Kakehi

Video signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	61.25	84.4	20.9	63.5	69.5	6.0
4	67.25	83.8	21.0	62.8	69.5	6.7

Audio signal

Ch.	Frequency [MHz]	Meter reading [dBuV]	Correction factor [dB]	Result [dB]	Limits [dBuV]	Margin [dB]
3	56.75	69.3	20.9	48.4	56.5	8.1
	65.75	68.2	21.1	47.1	56.5	9.4
4	62.75	68.7	21.0	47.7	56.5	8.8
	71.75	67.5	20.9	46.6	56.5	9.9

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : TV Reception + Rec(25dBmV) : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	32.6400	38.0	----	-21.2	16.8	----	39.5	----	22.7	----	-
2	47.8100	32.9	----	-21.0	11.9	----	39.5	----	27.6	----	-
3	122.5200	35.1	----	-20.8	14.3	----	39.5	----	25.2	----	-
4	245.0300	29.4	----	-20.9	8.5	----	39.5	----	31.0	----	-
5	612.6000	32.6	----	-20.6	12.0	----	39.5	----	27.5	----	-
6	847.0800	40.1	----	-20.4	19.7	----	39.5	----	19.8	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : TV Reception + Rec(0dBmV) : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	32.6100	37.7	----	-21.2	16.5	----	39.5	----	23.0	----	-
2	47.7000	32.8	----	-21.0	11.8	----	39.5	----	27.7	----	-
3	122.5200	34.8	----	-20.8	14.0	----	39.5	----	25.5	----	-
4	245.0300	28.9	----	-20.9	8.0	----	39.5	----	31.5	----	-
5	612.5000	32.2	----	-20.6	11.6	----	39.5	----	27.9	----	-
6	847.0200	40.0	----	-20.4	19.6	----	39.5	----	19.9	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

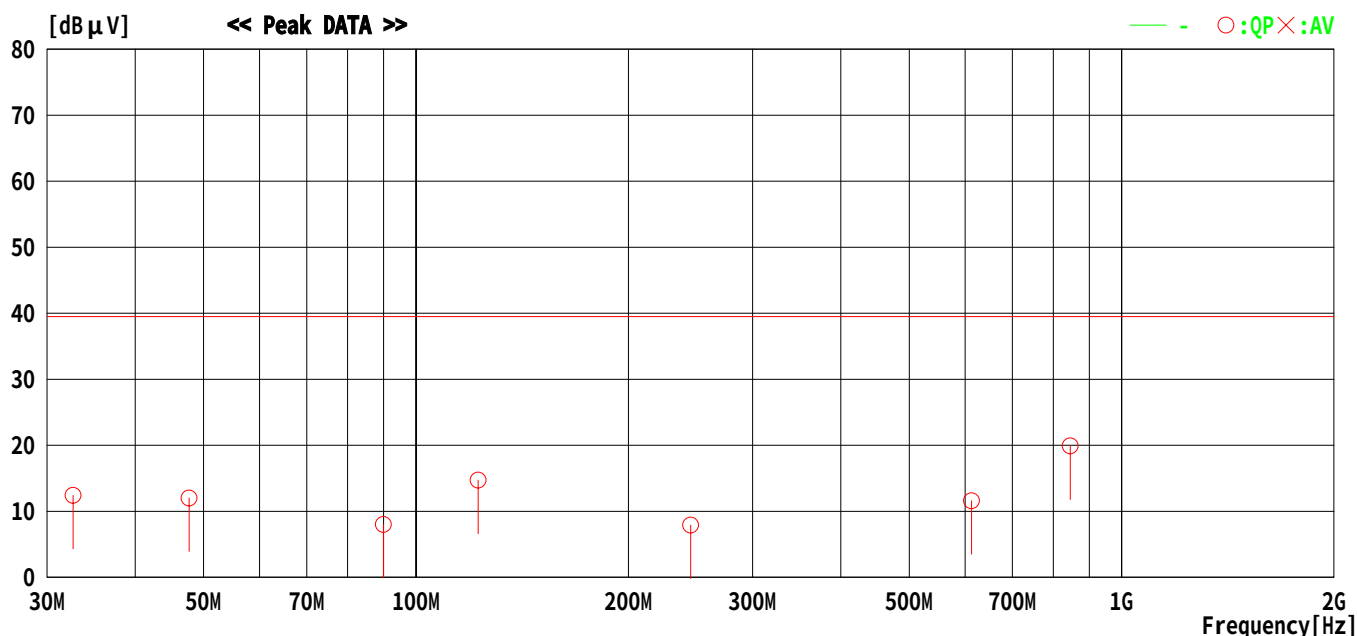
YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 1 + Rec(5Vp-p) : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	Peak [dB]	- [dB]	
1	32.6600	33.6	----	-21.2	12.4	----	39.5	----	27.1	----	-
2	47.7000	33.0	----	-21.0	12.0	----	39.5	----	27.5	----	-
3	89.9000	28.8	----	-20.8	8.0	----	39.5	----	31.5	----	-
4	122.5300	35.5	----	-20.8	14.7	----	39.5	----	24.8	----	-
5	245.0300	28.8	----	-20.9	7.9	----	39.5	----	31.6	----	-
6	612.5800	32.2	----	-20.6	11.6	----	39.5	----	27.9	----	-
7	845.7400	40.3	----	-20.4	19.9	----	39.5	----	19.6	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dB μV] + CABLE LOSS[dB μV]

DATA OF RF SUPRIIOUS TEST

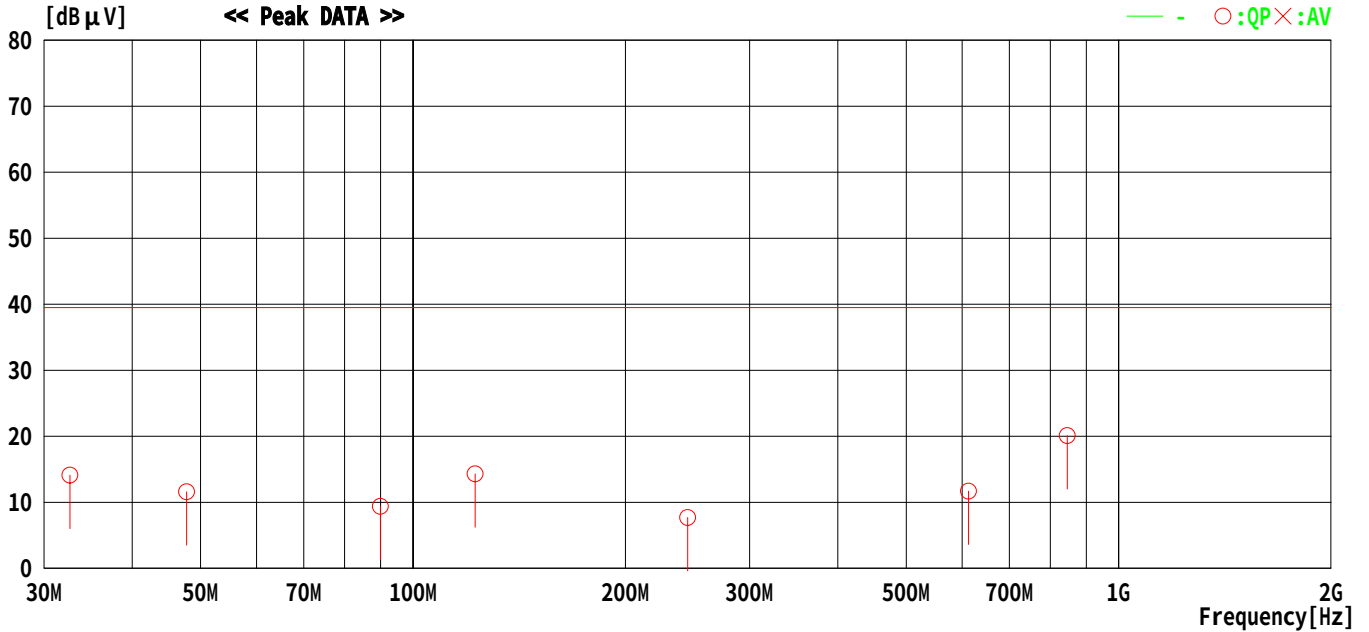
YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 1 + Rec(1Vp-p) : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS



NO	FREQ [MHz]	READING		C.F	RESULT		LIMIT		MARGIN		PHASE
		Peak [dB μV]	- [dB μV]		Peak [dB μV]	- [dB μV]	Peak [dB μV]	- [dB μV]	Peak [dB]	- [dB]	
1	32.6400	35.3	----	-21.2	14.1	----	39.5	----	25.4	----	-
2	47.7700	32.6	----	-21.0	11.6	----	39.5	----	27.9	----	-
3	89.9100	30.2	----	-20.8	9.4	----	39.5	----	30.1	----	-
4	122.5300	35.1	----	-20.8	14.3	----	39.5	----	25.2	----	-
5	245.0500	28.6	----	-20.9	7.7	----	39.5	----	31.8	----	-
6	612.5800	32.3	----	-20.6	11.7	----	39.5	----	27.8	----	-
7	845.7300	40.5	----	-20.4	20.1	----	39.5	----	19.4	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dB μV] + CABLE LOSS[dB μV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 2 + Rec(5Vp-p) : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	32.6300	34.3	----	-21.2	13.1	----	39.5	----	26.4	----	-
2	47.7600	32.9	----	-21.0	11.9	----	39.5	----	27.6	----	-
3	89.8900	29.6	----	-20.8	8.8	----	39.5	----	30.7	----	-
4	122.5200	35.4	----	-20.8	14.6	----	39.5	----	24.9	----	-
5	245.0600	29.1	----	-20.9	8.2	----	39.5	----	31.3	----	-
6	612.5800	32.5	----	-20.6	11.9	----	39.5	----	27.6	----	-
7	849.0900	40.3	----	-20.4	19.9	----	39.5	----	19.6	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 2 + Rec(1Vp-p) : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	32.6100	36.7	----	-21.2	15.5	----	39.5	----	24.0	----	-
2	47.7600	33.0	----	-21.0	12.0	----	39.5	----	27.5	----	-
3	89.9100	31.1	----	-20.8	10.3	----	39.5	----	29.2	----	-
4	122.5200	35.3	----	-20.8	14.5	----	39.5	----	25.0	----	-
5	245.0300	28.6	----	-20.9	7.7	----	39.5	----	31.8	----	-
6	612.5800	32.8	----	-20.6	12.2	----	39.5	----	27.3	----	-
7	849.0900	40.4	----	-20.4	20.0	----	39.5	----	19.5	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : VCR Play : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	32.6400	34.5	----	-21.2	13.3	----	39.5	----	26.2	----	-
2	47.7600	32.7	----	-21.0	11.7	----	39.5	----	27.8	----	-
3	122.5200	35.1	----	-20.8	14.3	----	39.5	----	25.2	----	-
4	245.0200	29.3	----	-20.9	8.4	----	39.5	----	31.1	----	-
5	675.0100	34.7	----	-20.6	14.1	----	39.5	----	25.4	----	-
6	847.0200	40.2	----	-20.4	19.8	----	39.5	----	19.7	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : DVD Play : 3ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	54.1100	33.6	----	-20.9	12.7	----	39.5	----	26.8	----	-
2	122.5200	35.6	----	-20.8	14.8	----	39.5	----	24.7	----	-
3	245.0200	29.1	----	-20.9	8.2	----	39.5	----	31.3	----	-
4	675.0000	33.1	----	-20.6	12.5	----	39.5	----	27.0	----	-
5	708.7500	30.4	----	-20.4	10.0	----	39.5	----	29.5	----	-
6	847.0100	40.2	----	-20.4	19.8	----	39.5	----	19.7	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : TV Reception + Rec(25dBmV) : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	38.6100	38.6	----	-21.0	17.6	----	39.5	----	21.9	----	-
2	53.7200	31.9	----	-20.9	11.0	----	39.5	----	28.5	----	-
3	134.4900	33.4	----	-20.7	12.7	----	39.5	----	26.8	----	-
4	672.4000	34.1	----	-20.6	13.5	----	39.5	----	26.0	----	-
5	708.7700	30.9	----	-20.4	10.5	----	39.5	----	29.0	----	-
6	847.0000	40.1	----	-20.4	19.7	----	39.5	----	19.8	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : TV Reception + Rec(0dBmV) : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	38.5800	37.8	----	-21.0	16.8	----	39.5	----	22.7	----	-
2	53.7000	31.7	----	-20.9	10.8	----	39.5	----	28.7	----	-
3	134.4900	33.5	----	-20.7	12.8	----	39.5	----	26.7	----	-
4	672.4100	33.5	----	-20.6	12.9	----	39.5	----	26.6	----	-
5	708.7600	31.1	----	-20.4	10.7	----	39.5	----	28.8	----	-
6	847.0100	40.1	----	-20.4	19.7	----	39.5	----	19.8	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 1 + Rec(5Vp-p) : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	38.6100	26.4	----	-21.0	5.4	----	39.5	----	34.1	----	-
2	53.7600	25.2	----	-20.9	4.3	----	39.5	----	35.2	----	-
3	80.7600	27.1	----	-21.2	5.9	----	39.5	----	33.6	----	-
4	95.8900	24.8	----	-20.7	4.1	----	39.5	----	35.4	----	-
5	134.4800	31.4	----	-20.7	10.7	----	39.5	----	28.8	----	-
6	157.5300	24.0	----	-20.8	3.2	----	39.5	----	36.3	----	-
7	171.8100	25.8	----	-20.7	5.1	----	39.5	----	34.4	----	-
8	201.7300	25.6	----	-20.7	4.9	----	39.5	----	34.6	----	-
9	268.9800	27.8	----	-20.9	6.9	----	39.5	----	32.6	----	-
10	537.9500	30.2	----	-20.7	9.5	----	39.5	----	30.0	----	-
11	708.7600	36.7	----	-20.4	16.3	----	39.5	----	23.2	----	-
12	841.7100	40.7	----	-20.4	20.3	----	39.5	----	19.2	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 1 + Rec(1Vp-p) : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	38.6100	29.0	----	-21.0	8.0	----	39.5	----	31.5	----	-
2	53.7500	26.0	----	-20.9	5.1	----	39.5	----	34.4	----	-
3	80.7500	26.1	----	-21.2	4.9	----	39.5	----	34.6	----	-
4	95.8800	25.9	----	-20.7	5.2	----	39.5	----	34.3	----	-
5	134.4900	30.4	----	-20.7	9.7	----	39.5	----	29.8	----	-
6	157.5200	24.4	----	-20.8	3.6	----	39.5	----	35.9	----	-
7	171.8300	25.2	----	-20.7	4.5	----	39.5	----	35.0	----	-
8	201.7700	24.7	----	-20.7	4.0	----	39.5	----	35.5	----	-
9	268.9800	28.0	----	-20.9	7.1	----	39.5	----	32.4	----	-
10	537.9600	29.8	----	-20.7	9.1	----	39.5	----	30.4	----	-
11	708.7500	36.1	----	-20.4	15.7	----	39.5	----	23.8	----	-
12	841.7000	40.5	----	-20.4	20.1	----	39.5	----	19.4	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 2 + Rec(5Vp-p) : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	38.6300	29.4	----	-21.0	8.4	----	39.5	----	31.1	----	-
2	134.5000	30.9	----	-20.7	10.2	----	39.5	----	29.3	----	-
3	268.9800	27.5	----	-20.9	6.6	----	39.5	----	32.9	----	-
4	537.9500	30.1	----	-20.7	9.4	----	39.5	----	30.1	----	-
5	708.7700	36.3	----	-20.4	15.9	----	39.5	----	23.6	----	-
6	841.7100	40.8	----	-20.4	20.4	----	39.5	----	19.1	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 2 + Rec(1Vp-p) : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	38.6000	35.4	----	-21.0	14.4	----	39.5	----	25.1	----	-
2	134.4900	32.4	----	-20.7	11.7	----	39.5	----	27.8	----	-
3	269.0000	27.0	----	-20.9	6.1	----	39.5	----	33.4	----	-
4	537.9600	29.3	----	-20.7	8.6	----	39.5	----	30.9	----	-
5	708.7700	35.9	----	-20.4	15.5	----	39.5	----	24.0	----	-
6	841.7000	40.3	----	-20.4	19.9	----	39.5	----	19.6	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : VCR Play : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	38.6000	35.6	----	-21.0	14.6	----	39.5	----	24.9	----	-
2	53.7500	32.3	----	-20.9	11.4	----	39.5	----	28.1	----	-
3	134.4800	33.9	----	-20.7	13.2	----	39.5	----	26.3	----	-
4	672.4100	33.7	----	-20.6	13.1	----	39.5	----	26.4	----	-
5	708.7500	36.8	----	-20.4	16.4	----	39.5	----	23.1	----	-
6	847.0100	40.3	----	-20.4	19.9	----	39.5	----	19.6	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF RF SUPRIIOUS TEST

YOKOWA NO.7 S/R
Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : DVD Play : 4ch

LIMIT : FCC 15B RF OUT SPURIOUS

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	53.6700	32.3	----	-20.9	11.4	----	39.5	----	28.1	----	-
2	60.0900	32.8	----	-20.9	11.9	----	39.5	----	27.6	----	-
3	134.4900	33.9	----	-20.7	13.2	----	39.5	----	26.3	----	-
4	672.4900	34.1	----	-20.6	13.5	----	39.5	----	26.0	----	-
5	708.7500	34.6	----	-20.4	14.2	----	39.5	----	25.3	----	-
6	847.0200	39.9	----	-20.4	19.5	----	39.5	----	20.0	----	-

CALCULATION: READING + CORRECTION FACTOR
CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 1 + Rec(5Vp-p) : 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	61.2500	22.5	----	-20.9	1.6	----	9.5	----	7.9	----	-
2	122.5000	22.4	----	-20.8	1.6	----	9.5	----	7.9	----	-
3	183.7500	22.7	----	-20.7	2.0	----	9.5	----	7.5	----	-
4	245.0000	22.6	----	-20.9	1.7	----	9.5	----	7.8	----	-
5	306.2500	22.6	----	-20.9	1.7	----	9.5	----	7.8	----	-
6	367.5000	23.6	----	-20.9	2.7	----	9.5	----	6.8	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 1 + Rec(1Vp-p) : 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	61.2500	21.6	----	-20.9	0.7	----	9.5	----	8.8	----	-
2	122.5000	21.6	----	-20.8	0.8	----	9.5	----	8.7	----	-
3	183.7500	22.6	----	-20.7	1.9	----	9.5	----	7.6	----	-
4	245.0000	22.7	----	-20.9	1.8	----	9.5	----	7.7	----	-
5	306.2500	22.5	----	-20.9	1.6	----	9.5	----	7.9	----	-
6	367.5000	23.1	----	-20.9	2.2	----	9.5	----	7.3	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 2 + Rec(5Vp-p) : 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	61.2500	21.7	----	-20.9	0.8	----	9.5	----	8.7	----	-
2	122.5000	22.4	----	-20.8	1.6	----	9.5	----	7.9	----	-
3	183.7500	22.2	----	-20.7	1.5	----	9.5	----	8.0	----	-
4	245.0000	22.8	----	-20.9	1.9	----	9.5	----	7.6	----	-
5	306.2500	22.4	----	-20.9	1.5	----	9.5	----	8.0	----	-
6	367.5000	23.5	----	-20.9	2.6	----	9.5	----	6.9	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 2 + Rec(1Vp-p) : 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	61.2500	21.2	----	-20.9	0.3	----	9.5	----	9.2	----	-
2	122.5000	21.8	----	-20.8	1.0	----	9.5	----	8.5	----	-
3	183.7500	22.6	----	-20.7	1.9	----	9.5	----	7.6	----	-
4	245.0000	22.1	----	-20.9	1.2	----	9.5	----	8.3	----	-
5	306.2500	23.1	----	-20.9	2.2	----	9.5	----	7.3	----	-
6	367.5000	24.3	----	-20.9	3.4	----	9.5	----	6.1	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : VCR Play : 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	61.2500	21.3	----	-20.9	0.4	----	9.5	----	9.1	----	-
2	122.5000	22.5	----	-20.8	1.7	----	9.5	----	7.8	----	-
3	183.7500	22.1	----	-20.7	1.4	----	9.5	----	8.1	----	-
4	245.0000	22.5	----	-20.9	1.6	----	9.5	----	7.9	----	-
5	306.2500	22.7	----	-20.9	1.8	----	9.5	----	7.7	----	-
6	367.5000	23.0	----	-20.9	2.1	----	9.5	----	7.4	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : DVD Play : 3ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	61.2500	21.5	----	-20.9	0.6	----	9.5	----	8.9	----	-
2	122.5000	21.9	----	-20.8	1.1	----	9.5	----	8.4	----	-
3	183.7500	24.0	----	-20.7	3.3	----	9.5	----	6.2	----	-
4	245.0000	22.8	----	-20.9	1.9	----	9.5	----	7.6	----	-
5	306.2500	22.6	----	-20.9	1.7	----	9.5	----	7.8	----	-
6	367.5000	23.0	----	-20.9	2.1	----	9.5	----	7.4	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 1 + Rec(5Vp-p) : 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	67.2500	22.1	----	-21.0	1.1	----	9.5	----	8.4	----	-
2	134.5000	22.4	----	-20.7	1.7	----	9.5	----	7.8	----	-
3	201.7500	22.8	----	-20.7	2.1	----	9.5	----	7.4	----	-
4	269.0000	22.8	----	-20.9	1.9	----	9.5	----	7.6	----	-
5	336.2500	23.1	----	-20.9	2.2	----	9.5	----	7.3	----	-
6	403.5000	23.5	----	-20.9	2.6	----	9.5	----	6.9	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 1 + Rec(1Vp-p) : 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	67.2500	22.2	----	-21.0	1.2	----	9.5	----	8.3	----	-
2	134.5000	22.0	----	-20.7	1.3	----	9.5	----	8.2	----	-
3	201.7500	22.0	----	-20.7	1.3	----	9.5	----	8.2	----	-
4	269.0000	23.3	----	-20.9	2.4	----	9.5	----	7.1	----	-
5	336.2500	22.5	----	-20.9	1.6	----	9.5	----	7.9	----	-
6	403.5000	23.0	----	-20.9	2.1	----	9.5	----	7.4	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 2 + Rec(5Vp-p) : 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	67.2500	23.4	----	-21.0	2.4	----	9.5	----	7.1	----	-
2	134.5000	22.2	----	-20.7	1.5	----	9.5	----	8.0	----	-
3	201.7500	22.7	----	-20.7	2.0	----	9.5	----	7.5	----	-
4	269.0000	23.1	----	-20.9	2.2	----	9.5	----	7.3	----	-
5	336.2500	22.6	----	-20.9	1.7	----	9.5	----	7.8	----	-
6	403.5000	23.6	----	-20.9	2.7	----	9.5	----	6.8	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : AV Input 2 + Rec(1Vp-p) : 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	67.2500	22.0	----	-21.0	1.0	----	9.5	----	8.5	----	-
2	134.5000	22.2	----	-20.7	1.5	----	9.5	----	8.0	----	-
3	201.7500	22.1	----	-20.7	1.4	----	9.5	----	8.1	----	-
4	269.0000	23.1	----	-20.9	2.2	----	9.5	----	7.3	----	-
5	336.2500	22.4	----	-20.9	1.5	----	9.5	----	8.0	----	-
6	403.5000	22.9	----	-20.9	2.0	----	9.5	----	7.5	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : VCR Play : 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	67.2500	22.7	----	-21.0	1.7	----	9.5	----	7.8	----	-
2	134.5000	22.4	----	-20.7	1.7	----	9.5	----	7.8	----	-
3	201.7500	23.3	----	-20.7	2.6	----	9.5	----	6.9	----	-
4	269.0000	23.4	----	-20.9	2.5	----	9.5	----	7.0	----	-
5	336.2500	22.7	----	-20.9	1.8	----	9.5	----	7.7	----	-
6	403.5000	23.7	----	-20.9	2.8	----	9.5	----	6.7	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

DATA OF ANTENNA TRANSFER SWITCH TEST

YOKOWA NO.7 S/R

Date : 2004/07/28 11:48:34

COMPANY : Orion Electric Co., Ltd.
EQUIPMENT : DVD/VCR
MODEL NO. : PV-D744S-A
POWER : AC120V/60Hz

Report No. : 24LE0253-YW-1
REGURATION : FCC Part15 SubpartB
TEMP./HUM. : 23deg.C/66%
ENGINEER : Seigo Kakehi

MODE : DVD Play : 4ch

LIMIT : FCC15B ANTENNA TRANSFER SWITCH

NO	FREQ [MHz]	READING		C.F [dB]	RESULT		LIMIT		MARGIN		PHASE
		Peak [dBμV]	- [dBμV]		Peak [dBμV]	- [dBμV]	Peak [dBμV]	- [dBμV]	Peak [dB]	- [dB]	
1	67.2500	22.4	----	-21.0	1.4	----	9.5	----	8.1	----	-
2	134.5000	23.2	----	-20.7	2.5	----	9.5	----	7.0	----	-
3	201.7500	22.5	----	-20.7	1.8	----	9.5	----	7.7	----	-
4	269.0000	22.9	----	-20.9	2.0	----	9.5	----	7.5	----	-
5	336.2500	22.8	----	-20.9	1.9	----	9.5	----	7.6	----	-
6	403.5000	23.3	----	-20.9	2.4	----	9.5	----	7.1	----	-

CALCULATION: READING + CORRECTION FACTOR

CORRECTION FACTOR = MATCHING PAD LOSS 7.8[dBμV] + CABLE LOSS[dBμV]

Picture Sensitivity Test

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company : Orion Electric Co., Ltd.
Equipment : DVD/VCR
Model Number : PV-D744S-A
Power : 120V/60Hz
Description : TV Reception
Remarks : -

Report Number : 24LE0253-YW-1
Regulation : FCC Part15 Subpart B
Date : July 26, 2004
Temp / Humid : 23deg.C/45%
Engineer : Tsubasa Takayama

Ch [VHF]	Frequency [MHz]	Sensitivity [MHz]		Ch [UHF]	Frequency [MHz]	Sensitivity [MHz]	
		[dBμV]	[μV]			[dB μ V]	[μ V]
2	55.25	20.0	10.0	14	471.25	19.5	9.4
3	61.25	16.2	6.5	20	507.25	19.5	9.4
4	67.25	16.4	6.6	26	543.25	19.7	9.7
5	77.25	16.5	6.7	32	579.25	20.5	10.6
6	83.25	16.5	6.7	38	615.25	20.5	10.6
7	175.25	16.7	6.8	44	651.25	18.5	8.4
8	181.25	16.7	6.8	50	687.25	18.3	8.2
9	187.25	16.6	6.8	56	723.25	18.3	8.2
10	193.25	16.9	7.0	62	759.25	18.9	8.8
11	199.25	17.0	7.1	69	801.25	18.9	8.8
12	205.25	17.4	7.4	-	-	-	-
13	211.25	17.4	7.4	-	-	-	-
Average VHF			7.1	Average UHF			9.2
Average UHF/VHF : $20 \log \text{UHF}[\mu\text{V}] / \text{VHF}[\mu\text{V}] =$				2.2 [Limit : 8.0dB]			

Noise Figure Test

UL Apex Co.,Ltd.
Yokowa EMC Laboratory

Company : Orion Electric Co., Ltd.
Equipment : DVD/VCR
Model Number : PV-D744S-A
Power : 120V/60Hz
Description : TV Reception
Remarks : -

Report Number : 24LE0253-YW-1
Regulation : FCC Part15 Subpart B
Date : July 26, 2004
Temp / Humid : 23deg.C/45%
Engineer : Tsubasa Takayama

Ch	Frequency [MHz]	Meter Reading [dB]	Correction Factor [dB]	Noise Figure [dB]	Limits [dB]	Margin [dB]
TV VHF Fundamental						
2	55.25	8.0	0.2	7.8	14.0	6.2
3	61.25	3.5	0.2	3.3	14.0	10.7
4	67.25	3.2	0.2	3.0	14.0	11.0
5	77.25	3.5	0.2	3.3	14.0	10.7
6	83.25	3.0	0.2	2.8	14.0	11.2
7	175.25	4.2	0.2	4.0	14.0	10.0
8	181.25	4.0	0.2	3.8	14.0	10.2
9	187.25	4.0	0.2	3.8	14.0	10.2
10	193.25	3.8	0.2	3.6	14.0	10.4
11	199.25	3.9	0.2	3.7	14.0	10.3
12	205.25	3.7	0.2	3.5	14.0	10.5
13	211.25	3.8	0.2	3.6	14.0	10.4
TV UHF Fundamental						
14	471.25	5.5	0.3	5.2	14.0	8.8
20	507.25	5.5	0.3	5.2	14.0	8.8
26	543.25	5.5	0.3	5.2	14.0	8.8
32	579.25	6.0	0.3	5.7	14.0	8.3
38	615.25	7.0	0.3	6.7	14.0	7.3
44	651.25	6.2	0.3	5.9	14.0	8.1
50	687.25	6.0	0.3	5.7	14.0	8.3
56	723.25	6.0	0.4	5.6	14.0	8.4
62	759.25	5.8	0.4	5.4	14.0	8.6
69	801.25	6.0	0.4	5.6	14.0	8.4
Mid band						
14	121.25	3.8	0.2	3.6	14.0	10.4
16	133.25	7.0	0.2	6.8	14.0	7.2
18	145.25	6.0	0.2	5.8	14.0	8.2
20	157.25	6.3	0.2	6.1	14.0	7.9
22	169.25	5.0	0.2	4.8	14.0	9.2
Super band						
23	217.25	4.6	0.2	4.4	14.0	9.6
26	235.25	4.0	0.2	3.8	14.0	10.2
29	253.25	4.0	0.2	3.8	14.0	10.2
32	271.25	4.0	0.2	3.8	14.0	10.2
36	295.25	4.2	0.2	4.0	14.0	10.0

Test Report No : 24LE0253-YW-1

APPENDIX 3

Test Instruments

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
APVBT01	VIDEO BOOSTER	UL Apex	-	RF, ATS	-
APTVG01	TV Generator	Leader	408NPS	RF, ATS	Pre Check
APSPA04	Spectrum Analyzer	Advantest	R3265	AT, RF, ATS	2004/05/14 * 12
APMAT05	Matching Pad	TME	ZT-130	AT, RF, ATS, PS, NF	2003/12/16 * 12
APNFM01	Noise Figure Indicator	Elena	ENF-2005	NF	2002/09/27 * 24
APNFS01	Noise Source	Elena	MC1100	NF	-
AV01-01	Signal Generator	Rohde & Schwarz	SMY01	PS	2004/02/19 * 12
SS-05	Digitizing Oscilloscope	Sony Tektronix	2221	PS	2004/01/22 * 12
APBPF01	Band pass filter	Erika Fiedler	BP	PS	Pre Check
APPRA01	Pre Amplifier	Anritsu	MH648A	AT, RF, ATS	2003/10/03 * 12
APPRA05	Pre Amplifier	Hewlett Packard	8449B	AT	2003/12/10 * 12
APCBL-01	Coaxial Cable	Fujikura	5D-2W	AT, RF, ATS	2004/01/08 * 12
APCBL-02	Coaxial Cable	Fujikura	5D-2W	AT, RF, ATS	2004/01/08 * 12
OS-15	Digital Humidity Indicator	SATO	PC-5000TRH	CE, RF, ATS, PS, NF	2004/05/06 * 12
AF-02	Pre Amplifier	Anritsu	MH648A	RE	2004/03/28 * 12
AF-04	Pre Amplifier	Hewlett Packard	8449B	RE	2003/11/04 * 12
AT-03	Attenuator	Anritsu	MP721B	RE	2004/03/22 * 12
BA-10	Biconical Antenna	Schwarzbeck	BBA9106	RE	2003/10/31 * 12
HA-05	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2004/04/10 * 12
LA-06	Logperiodic Antenna	Schwarzbeck	UHALP9108-A	RE	2004/04/10 * 12
SA-07	Spectrum Analyzer	Advantest	R3273	RE	2004/07/26 * 12
TR-02	Test Receiver	Rohde & Schwarz	ESVS30	RE	2004/05/11 * 12
CC-10RC	Yokowa No.1 open coaxial(0.01-1000MHz)	UL Apex	CC-11,CC-12,CC-14, CC-15,CC-16,,SW-11, SW-12	RE	2004/03/28 * 12
CC-C10	Microwave Cable	Storm	421-014(7m)	RE	2003/12/18 * 12
CC-C13	Microwave Cable	Suhner	SUCOFLEX	RE	2004/01/07 * 12
YOATS-01	Open Test Site	JSE	3m, 10m	RE	2003/08/13 * 12
OS-06	Digital Humidity Indicator	SATO	PC-5000TRH	RE	2004/04/01 * 12
HA-01	Horn Antenna	A.H.Systems	SAS-200/571	RE	2004/04/10 * 12
SA-05	Spectrum Analyzer	Advantest	R3271	CE, RE	2003/12/21 * 12
TR-03	Test Receiver	Rohde & Schwarz	ESHS30	CE	2004/05/21 * 12
LS-03	LISN(AMN)	Schwarzbeck	NSLK8127	CE	2003/10/31 * 12
CC-2S	Yokowa No.2 shield coaxial(0.01MHz-1000MHz)	UL Apex	CC-24,CC-25,CC-26, CC-28,CC-29,SW-21, SW-22	CE	2004/03/28 * 12
OS-10	Digital Humidity Indicator	SATO	PC-5000TRH	RE	2004/05/06 * 12
YOATS-02	Open Test Site	JSE	3m, 10m	RE	2003/08/14 * 12
CC-C15	Microwave Cable	Suhner	SUCOFLEX	RE	2004/05/02 * 12
CC-C17	Microwave Cable	Suhner	SUCOFLEX	RE	2004/05/02 * 12

All equipment is calibrated with traceable calibrations . Each calibration is traceable to the national or international standards .

Test Item :

CE: Conducted emission
 RE: Radiated emission
 AT: Antenna terminal disturbance voltage
 RF: RF output level & spurious
 ATS: Antenna transfer switch
 PS: Picture sensitivity
 NF: Noise figure